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ABSTRACT

An operant conditioning program for 12 problematic adolescent boys is described in detail. Complete procedures are discussed, including criteria for student selection and the Programming Interpersonal Curricula for Adolescents (PICA) academic and psychological test battery. The academic component of the program focuses on mathematics and English language. Both individual programmed materials and classroom experiences are utilized. A series of interpersonal skills classes deals with the development of behavior useful to students both in school and at home. General elements of the study program are examined: (1) the reinforcement schedule for successful performance; (2) the requirements for advancing through the program; and (3) an explicit detailing of the data management procedures. Students attend PICA only in the morning and return to their regular schools in the afternoon. A school liaison program, designed to co-ordinate the two, is described. A substantial section of the report deals with the parent training program which is divided into two parts: (1) setting behavior standards; and (2) contingency management procedures. All materials and instructional procedures of this parent program are elaborated. Addenda include: (1) PICA forms to report student status and progress to schools; (2) selections from the student handbook; and (3) selections from the PICA "parents newsletter." (TL)

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PROJECT INTERIM REPORT

The PICA Project
Year 2

PROGRAMMING INTERPERSONAL CURRICULA FOR ADOLESCENTS

PHS GRANT NUMBER
1 R01 MH14443-02 JP

GRANTED BY

National Institute of Mental Health
Center for Studies of Crime and Delinquency

GRANTEE INSTITUTION

Institute for Behavioral Research, Inc.
2429 Linden Lane
Silver Spring, Maryland 20910

PRINCIPAL INVESTIGATORS

Harold L. Cohen
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Joseph Slavin
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SUBMITTED: JUNE 30, 1970

COVERING PROJECT PERIOD

June 1, 1969
through
May 31, 1970

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INTRODUCTION

This report is written to serve a number of both general and specific purposes. Technically, it serves as partial fulfillment of requirements for Grant #1-R01 MH14443-02 JP, awarded through the Center for Studies of Crime and Delinquency, National Institute of Mental Health. Procedurally, it provides an opportunity to describe in some detail the operations of the Project in its most important year, when the majority of program development and research investigations were begun and from which all others will develop. Professionally, it permits an initial drafting of certain materials that will be used later as a basis of specific reports to a larger community. Generally, it forces review of all data and procedures (even though all may not be reported) immediately following the close of a distinct phase of Project operations.

The general objective of this report is to provide the reader with a basic understanding of the service, research, and program development activities of the PICA project. This report will not serve either as a "cookbook" for extension of the Project's procedures to other settings or as a collection of specific research and demonstration reports. Both of these objectives will be dealt with in later publications. A series of supplementary reports, detailing specific data related to limited aspects of the program will be released beginning in the summer of 1970. Documents useful in extending the PICA Project to traditional schools will be released during the third academic year.

The report contains basic information of each of the Project's activities, including introductory material where it appears necessary. This information must, however, be viewed as supplementary to the Year 1 Project Report, available from the Institute for Behavioral Research. Comparative descriptions of both Project years is presented where such data serves to illuminate critical elements of the program.

It must be noted that the major efforts during Year 2 were:

1. Development of the Interpersonal Skills curriculum and procedures.
2. Development of the Parental Training Program curriculum and procedures.
3. Refinement of the Academic Program curriculum.
4. Initiation of specific behavior modification studies.
5. Establishment of firm relationships with cooperating schools to insure that PICA-based programs and procedures will be instituted in the local school systems.

These elements of Year 2 are given the most emphasis in this report.

Although this report covers the main elements of PICA, the "Parent Training Program" chapter contains information about and data from parent behavior management activities conducted through the Diagnostic and Learning program of the IBR Educational Facility. Principal PICA staff cooperated in the development of this training program, but the conduct and report of the DIAL program were efforts of Mr. Kirk Swiss, Coordinator of the DIAL program.

CHAPTER I
WHAT THE PICA PROJECT IS

PICA, or Programming Interpersonal Curricula for Adolescents, is a four-year research and demonstration project, being conducted under a grant from the National Institute of Mental Health.

The basic premise of the PICA Project is that most learning behaviors are related to their consequences, and by establishing specific learning procedures as well as strict environmental controls, these learning behaviors can be developed, maintained, and extended. There are two aspects to the PICA Project.

1. PICA is a half-day (morning), out-of-school program where teenage, junior high school students study academic matter through special programs. They live at home with their families and attend their respective schools in the afternoons.

2. PICA's learning programs are designed to develop not only academic skills, but also appropriate interpersonal behaviors for those students who have had previous difficulty in this area at school. Examples of these interpersonal behaviors include study habits, interaction with teachers and other school personnel, as well as appropriate interactions with members of the student's family.

Objectives

The PICA Project has established a part-time educational program for those adolescents who are viewed by their schools and society as pre-delinquents or disturbed. The program is designed to investigate experimentally variables that affect academic and interpersonal performance development and to develop learning programs in these two categories. Through the course of this exploration, the Project

- uses selected self-instructional materials and seminars designed to repair academic deficiencies so that the student will be able to perform the objectives specified by the school as being appropriate for his age level;

- promotes the learning of study skills so that the student can maintain the academic pace of his school class;

- attempts to program instructional materials and learning behaviors for interpersonal skills so as to shape performance that does not interfere with academic learning;

- establishes a system of consequences contingent upon successful completion of specified tasks needed to maintain behavior through the learning sessions;

- develops procedures to promote parental involvement in learning programs structured to assist the parents in dealing with the interpersonal and academic difficulties of their child; and

- develops the program in a manner which promotes its transfer to a normal school program, using school personnel.

Academic Program Functions

Approximately 75 self-instructional courses are available for Grades 2-12 in the curriculum areas of English language, reading, and mathematics. Both conventional and modern mathematics techniques are available through most of the mathematics curriculum, assuring continuity with existing programs of local school systems. Each program element is consistent with a major objective of the curriculum guides of the local schools.

Procedures are used that require and permit the student to fulfill behaviorally specified goals for completion of course units within each program in the curriculum. Self-instructional courses and classroom programs are available for the development of academic study skills. Special automated learning programs and devices are used to develop study behavior; present audio, visual, and textual learning materials through programmed and responsive circuitry; and collect student responses covering a range of behavioral dimensions.

Specially designed, automated objective testing apparatus are used both to shape appropriate testing behavior and to assess critical skills such as attention, speed, and accuracy.

Enrichment programs in each of the curriculum areas which rely on more subjective evaluation may be taken as part of either the normal activities of the day or as "homework" elements of the program. These are extensions of the self-instructional curriculum materials in which the student is currently proficient.

Each student is permitted to use a private study carrel which is designed to facilitate studying and which can accommodate special automated programming equipment if required.

A reference library has been developed in order to coordinate with study materials in use. A resource of audiovisual aids (including films, filmstrips, slides, tapes, and models) is really available for use in and coordination with programs or classes in each curriculum area.

A staff of four full-time and seven part-time educational specialists are involved in the Project, including psychologists, educators, designers, teachers, statisticians, and educational aides.

Interpersonal Program Functions

There are two interrelated components of the interpersonal program in PICA: individual interpersonal skills and group interpersonal skills. In the first component, interpersonal skill learning is directed toward increasing each student's ability to interact appropriately with one other student or one staff member at a time. In the group program, each student is trained to deal effectively with groups of other students and teachers.

The individual program is designed to take place within the individualized instructional setting of the academic program. Special sets of behavioral objectives are treated for each student, according to his needs. Individual, student-initiated counseling and training in study skills and self-control procedures are integral components of this program. Successful completion of prerequisites in this area permit the student to advance along a graded series of behavioral levels to positions of greater privilege within the Project, both in individual skill programs and in the group activities.

Within the group interpersonal skills program, there is a series of four activities in which the students can engage:

Design Science
Behavioral Issues
The Contemporary Classroom
Interpersonal Issues

In each of these activities, PICA works toward the goal of developing interpersonal skills as prerequisites for succeeding elements in the program. Also, each of the activities was designed from the experience gained during Project Year 1 and has integral objectives set for each topic, ranging through peer relationships, authority relations, family interaction, and self-behavior practices. For each activity, observational skills, language skills, and procedural skills were developed to match explicit criteria for performance standards. Further, each activity approximates the behaviors required of students in differing academic situations: work-study laboratories, traditional classroom lectures, and discussion groups in the "seminar" model.

CHAPTER II
THE PICA FACILITY

The physical facility used for PICA Year 2 is in the same location as that employed during Year 1: The IBR Educational Facility, 2401 Linden Lane, Silver Spring, Maryland. Modifications were made to the facility during the summer between Years 1 and 2 to facilitate program changes and to permit working offices for certain key staff. The basic premise of the environmental controls for the Project were extended for Year 2: facilities were developed that 1) permitted both the observation and shaping of individual study behavior and 2) made possible the modification of in-class behaviors that approximated those required in the students' schools.

With these objectives in mind, several modifications were made to the Year 2 environment:

1. Individual study booths were decreased in size (to 3' x 4' interior dimension) and the total number decreased from 16 to 12 (the total number of students ever to be managed by PICA in this facility).

2. The program-checking area was increased in size to accommodate a great expansion of programmed materials storage and to permit extra staff to work within the area on program development and data management duties.

3. The former student lounge area was used as staff office space and the student lounge was moved to another, smaller location.

4. A scientific laboratory was designed and equipped for student use in space formerly occupied by laboratory space not devoted to PICA activities.

5. The classroom was remodeled and outfitted with actual school furniture to more closely approximate the students' school environments. This was done to insure that in-class behaviors could be shaped, modeled, and reinforced in an environment similar to that in which the students previously showed poor behavior.

6. Audio and video recording equipment were installed that permitted direct observation and recording of student behaviors in the classroom. This equipment was used both for observer convenience in recording behavior and to insure that detailed behaviors could be observed through a remotely-controlled zoom lens. Electro-mechanical equipment was installed to display for the students the bonus points being earned in the class and deductions being made for inappropriate in-class behavior. All of this equipment was controlled remotely from a room adjacent to the classroom.

No significant modifications were made to the environment during the course of the school year. The following describes the facility as it was used during Project Year 2.

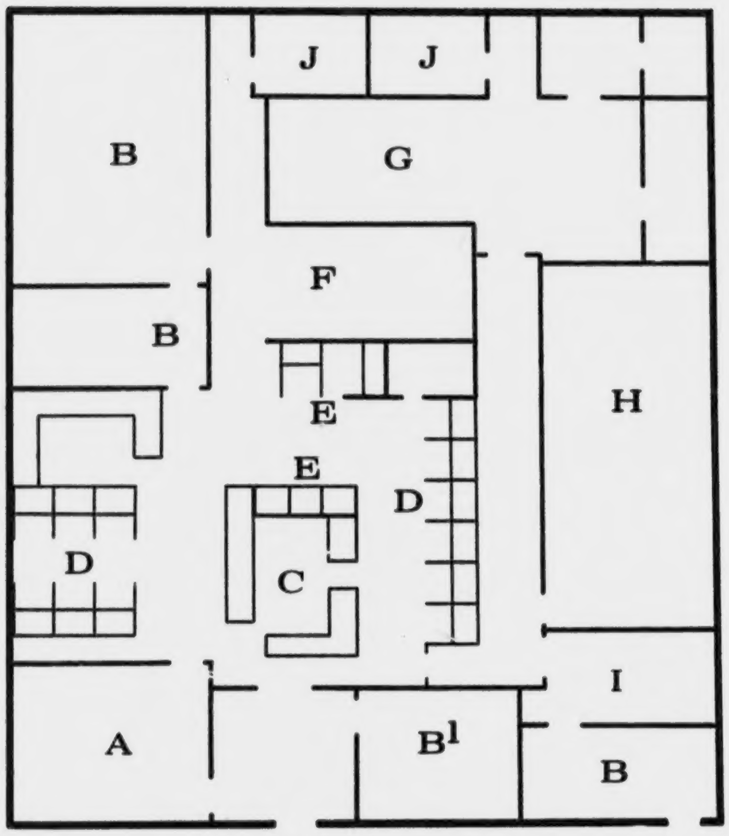


Fig. 1 PICA Facility

Coordinator's Office (marked as A on the floor plan)

In addition to serving as the Coordinator's private office, this area is also used for staff meetings as well as individual conferences with students.

Staff Offices (marked as B on the floor plan)

The staff offices, which are located at both the front and the rear of the Educational Facility, are used as work areas for the curriculum development specialists, data managers, and other staff. It is also used as a storage area for programs that are not presently used.

Educational Program Checking Area (marked as C on the floor plan)

The program-checking station is to serve as an area where the Student Educational Researcher (SER) reports for new assignments, test assignments, work reviews, and specific help that might be needed on his self-instruction work.

The area consists of the following sections:

1. Two program-checking stations (one for mathematics and one for English), which are used also as storage areas for programs being used in the PICA program.

2. An electronic monitoring system which is used in the administration of different study programs.

3. Special industrial-quality time clocks that are calibrated in hundredths of an hour and are used to record the elapsed time for all student activities.

4. Overhead racks where students' work is stored from one session to the next. Located in the same area are other racks in which various supplies used by the program checkers are stored (work sheets, test forms, etc.).

Study Booths (marked as D on the floor plan)

The study booths, which are located on both sides of the program-checking area are used for all studying and individual work done by the SER. The study booths, which are constructed of pegboard and Celotex (to help contain as well as reduce any noise in the working area) are assigned to each student at the beginning of the semester. Each SER is responsible for keeping his booth clean. Each booth contains a light, a shelf for storage of the SER's books and other personal items, a writing surface, a chair, and the student's name plate. A fine can result from not keeping one's booth clean.

Testing Booths (marked as E on the floor plan)

There are five testing booths in the Educational Facility. Three of these booths (adjacent to the program-checking station) are used for "paper and pencil" tests. They are separated by a pegboard barrier which helps prevent communication between students. The other two testing booths contain automatic testing equipment, which may be used in conjunction with the electronic monitoring system located in the program-checking area. These two booths are located across from the "paper and pencil" booths.

Lounge (marked as F on the floor plan)

The student lounge serves as a place for student rest and diversion (loosely, reinforcement). Students may use the lounge for a short period of time before they begin work in the morning. Following this brief break, and after reporting for work, students are permitted to use the lounge only after having completed a unit of self-instructional work. Further, they must not have received a fine or have been placed on the "time out" bench for misbehavior. They must pay a fee for time spent in the lounge during most of the Project year, and their amount of time is limited according to class level achieved in the Project. The lounge contains a minimum of amenities: six chairs, a sofa, two tables, soft-drink and candy machines, and a radio. Modern posters and mobiles are the only decorations.

Student Laboratory (marked as G on the floor plan)

This area was newly developed for Year 2 to serve as a laboratory for both the Behavioral Issues and Design Science classes. It was outfitted with laboratory tables, demonstration facilities, scientific equipment for conducting operant experimentation with rats, and storage for equipment used in these two classes. The space was used during the last quarter of the Project as a general work area for students engaged in scientifically-oriented projects under the direction of private tutors.

Classroom (marked as H on the floor plan)

This room was used for all classroom activities whose objectives demanded that they approximate traditional classroom procedures. The Contemporary Problems class, the Interpersonal Issues class, and all student assemblies were held here. The room contained twelve student desks, teacher's desk, storage space for all class materials, projection screens and both closed-circuit and RF television capability, two television cameras (one statis mounted with wide-angle lens for full-room viewing and the other outfitted with a remote controlled pan/tilt mount and zoom lens for detailed viewing, and microphones; there is also a large console for visually displaying bonuses and deductions for in-class behavior (controlled by observers outside the classroom).

Audiovisual Room (marked as I on the floor plan)

This room contains all audiovisual and control equipment needed to manage the classroom. Two television monitors (one for each camera) controls for the pan/tilt and zoom lens, microphone mixing equipment, and a video recorder comprise the master recording center. Electro-mechanical counting circuitry and switching controls are also located here to permit direct reinforcement and punishment of classroom behavior based upon the observations made on the TV equipment and recorded on auxiliary forms. Traditional projection and audio recording equipment are housed here for use in class sequences. The room is soundproofed from the classroom.

Data Management Center (marked as B^1 on the floor plan)

This facility is designed to house all data management apparatus, equipment, and records. The data manager shares the office with the Project assistant. All data records from the student and parent programs of PICA are processed here. Specific program data gathered each project day is listed, filed, processed, and analyzed through a Bell System teletype terminal connected to a time-shared data processing service, Tymshare, Inc.). The resultant information is stored only in this room. Graphic records are made of most data, stored here, and inspected on a project-length (# days) light table where relations can be made among various data categories. Summary tapes of all processed data are also stored here, to be used at the end of numerous periods (e.g., school grading periods) for the preparation of data-related reports.

Bathrooms (marked as J on the floor plan)

These facilities, while not austere, represent little cash expenditure for construction, purchase, and maintenance. Project visitors frequently commented that the environment "seemed alive," even when students had left for the day. Typical student graffiti was absent from the Facility and only once did a student deface a wall surface (then, only to write her boyfriend's name next to her own on the study booth name place). Accumulations of trash did become a problem in the lounge, but when the staff began charging the students for the cleanup services, such behavior stopped.

It is planned that this same facility will serve PICA for the next year. Additional space will be used in the IBR-leased space adjacent to the Educational Facility. An auditorium (for large parent meetings) and a special research space (for behavior modification and therapy studies) are the main additions to space planned for next year.

CHAPTER III
A PICA DAY IN BRIEF

Following his bus ride from school, the Student Educational Researcher (SER) enters the Educational Facility about 8:45 A.M. The first thing the SER does is stamp the time of arrival on his time card, like a worker in a place of business. The SER then deposits records of his previous day's school and home activities in a rack behind the time clock. When he leaves, he will find a new behavior recording form for that day's use.

The SER is then allowed to go to the lounge, free of charge, for two or three minutes. (His day officially begins when he starts work.) After this time is up, he should be ready to report to work when called on the intercom by the staff. He should have, by this time, hung up his coat, finished any refreshments he may have purchased, and taken care of any personal needs.

An announcement is made on the intercom that the program-checking station is open for business (i.e., that all SERs should report for work immediately). If the students hesitate in reporting to the program-checking station, their "pink sheets" (to be discussed later) will be stamped and the lounge function entered, indicating that the time being spent in the lounge is being charged to the student as part of his daily lounge-time allotment.

Upon entering the program-checking area, each SER is either assigned a self-instructional study program to work on, or he reports to the class that meets that day. If he begins work on a program, he obtains this material from a staff member at the program-checking station. The student then takes his work to his individual booth and, unless a specific problem arises during the course of his work (when he needs academic help from the staff), the SER works independently in his booth until the program is completed. After completing the program, the SER brings his work to the program-checking station. If the work has been performed at a specific criterion level, an entry is made on his "pink sheet" denoting the amount of money to be credited to the student. If he meets the criterion on a test of this material, he is permitted to go on to the next level in that program, or is assigned another program. If the work was not completed satisfactorily, the SER returns to his booth to review the work, until the criterion level is met. The staff must insure that the SERs spend approximately half their day in English and half in math (less time spent in classes). This is sometimes difficult since the time required to complete some programs is longer than the length of the entire session. In this event, the SER must make up "lost" time in the subject area in which he is deficient.

If the SER is scheduled for a specific class that day, he reports to the area of the Educational Facility where the class is to be held (e.g., classroom, animal lab). Certain classes require that only half of the students be present, while the other half are working on the academic programs. Other classes require that all students be present at the same time. After class, the students who were in class report to the program-checking station and are assigned programs, go to the lounge, or to any other function available to them.

The SER is permitted to go to the bathroom at any time during his study day, except during tests or classes. He may go to the lounge (paying for the time spent there) after completing one program section or one class, but he may not go to the lounge during tests or classes. He may also choose to sit on the "free bench" to relax at any time except during classes or tests.

The SER may circulate among these various activities throughout the day and may request special counseling from any staff member.

When the day is complete, the students receive their pay, and return to the lounge where they can relax, purchase refreshments, listen to the radio, or socialize with other SERs. When the bus is ready to go, the SERs pick up their new recording forms, punch out on their time card, and return to their respective schools.

CHAPTER IV
STUDENT SELECTION

Twelve students were selected for PICA in Year 2. This increase of four students over the number enrolled in Year 1 was made possible by the large-scale program development activities in Year 1. These twelves students were provided again by school districts in the District of Columbia, Montgomery County, and Prince Georges County, Maryland. However, one additional school from Montgomery County cooperated in the Project. Other than this school addition, all school staff with whom the Project dealt in Year 1 were involved again.

From this total of twelve students, four were drawn from each of the school districts (four from one D. C. school, four from one Prince Georges County school, and two each from two different Montgomery County schools). Nine students were male; eight were Caucasian and four were Negro; three were 14 years of age, five were 15, and four were 16. Four were from the 7th grade, two from the 8th, and six from the 9th. All came from families having middle- or low-income status. All but two had failed at least one grade in their previous school experience. Significantly, five of these students were known as previous or current drug users.

During the screening and selection of subjects, certain criteria were established to ensure that a broad spectrum of student problems would be reflected by the chosen population; to provide a means of validating the referral procedures used by the pupil personnel workers; and to ensure that the parents would cooperate with the parental phase of the program. This screen process consisted of four main components, each having specific divisions.

1. The first step was the selection of a potential student by the school, pupil personnel worker, and the Project staff. Sub-divisions of this first step were:

    a. The pupil personnel worker, psychologist, and local school staff decided that a particular student might benefit from PICA.

    b. The pupil personnel worker had the recommendation approved by the pupil personnel area supervisor.

    c. The pupil personnel worker called the Project Coordinator and explained the student's academic and interpersonal behavior problems. The Project Coordinator mailed the PICA intake forms and procedural guidelines to the pupil personnel worker.

    d. The pupil personnel worker arranged a conference with the student's parents to explain the PICA program.

    e. If the parents were interested, the intake form and student's records were forwarded to the Project Coordinator. The principal investigators of the PICA Project reviewed all forms and records and selected students for a pre-placement interview by randomly drawing names "from a hat." If the student was to be interviewed, the secretary called the parents and arranged for the date and time of contact with the staff.

2. Interviews with the parents and the student were conducted by the principal investigators, and the parents were notified about any decision concerning the student's acceptance.

3. Intelligence testing was conducted by a Project consultant.

4. Academic testing was conducted by the PICA educational staff to ascertain the student's achievement level in a broad range of subject matter. Sub-divisions of this 4th step are as follows:

   a. The tests were scored and the results evaluated.

   b. The parents and the student were informed of the test results and were presented with a proposed set of program objectives.

5. The formal enrollment process was completed. Sub-divisions of this final step are as follows:

   a. The pupil personnel worker was informed of the formal decision.

   b. The student was scheduled for learning sessions in PICA, and the pupil personnel worker assisted in making arrangements with the school for last minute program assignments.

This selection process was completed by September 1, 1969, two weeks before the opening of PICA Year 2. All students originally referred and randomly selected completed the entrance testing and continued into the program. (See orientation materials in Addenda.) One student was dropped from the program in May 1970, for not attending school (a formal requirement of all students). One student was hospitalized for approximately 1 month for withdrawal from barbiturate addiction, but continued in the program to the end of the Project year. Three students were required to appear in Juvenile Court during the Project year, two for offenses committed before entrance, and one for theft after the Project year began.

The topography of these students' behaviors at the time they entered the project is described below. This information is drawn from referral forms completed by school pupil personnel workers and supplemented from reports gathered through the year.

CRITERION CATEGORY	REASON FOR REFERRAL	STUDENT NUMBER											
		1	2	3	4	5	6	7	8	9	10	11	12
School Academic Difficulty	School grades of D+ or lower for past year or more	X		X	X	X	X	X	X	X	X	X	X
	Sharp drop in grades during past year		X										
	Prediction of failure for current year by teachers	X		X	X	X	X	X	X	X	X	X	X
In-School Social Difficulty	Regular truancy problem during the past year			X		X	X	X	X	X	X	X	X
	Inappropriate behavior toward: property (theft, damage, etc.)	X						X			X		
	other students (fights, etc.)	X		X	X	X		X		X	X	X	
	self (use drugs, etc.)					X	X	X		X		X	
	teachers (arguments, etc.)	X	X	X	X	X	X	X	X	X	X	X	X
	Increased counselor or Pupil Personnel contacts	X	X	X	X	X	X	X	X	X	X	X	X
Family and Societal Difficulty	Runaway from home			X		X	X	X			X	X	
	Record of fights and minor social misbehavior in community	X		X	X	X		X		X	X	X	
	Major student misbehavior referred to: Police	X		X		X		X		X	X	X	
	Court*			X		X		X		X	X		
	Social Agency		X		X	X	X	X	X		X		X
	Family problems referred to: Police					X							
	Court		X	X		X							
	Social Agency			X	X			X	X		X		
	Student shows withdrawal from home, social, school contacts		X										
*Usually involving formal probation		Mont.County				P.G.County				D.C.			

Fig. 2 Reasons for Referral of Twelve Students Selected as PICA Subjects.

As in Year 1, these students were clearly among those considered most troublesome by their teachers, counselors, and pupil personnel workers. Their past histories of difficulties in school and in the community were not significantly different from the students selected for Year 1.

CHAPTER V
THE PICA TESTING BATTERY--DESCRIPTION AND RESULTS

The development of a series of testing instruments that could be used to assess the student's academic and interpersonal skills required that four criteria be met. These were as follows:

1. The test instruments would have to serve as pre-Project assessment of the student's skills for the Project.
2. Alternate forms of the test should be available to permit post-Project testing, to provide pre- and post-test scores on the same test.
3. The tests should be useful in developing a method of placing the student in established and future sequences of academic and interpersonal skills programs.
4. The resulting scores should be such that statistical evaluations could be made in accordance with other data.

The Academic Test Battery

Initially, standardized tests which related to the proposed academic curriculum were reviewed. It was apparent that the most important test would be in the skill area of reading (which hopefully would include necessary information on vocabulary, speed, and comprehension). Second, it was essential to determine the student's ability to manage mathematical concepts and computation skills in basic arithmetic and mathematics. Both these steps were necessary so that the student could eventually be placed in his appropriate academic level in English and math.

The groups of tests finally selected as the PICA Academic Testing Battery were:

GATES-MacGINITIE READING TEST (GATES)
- Speed and Accuracy
- Vocabulary
- Comprehension

STANFORD ACHIEVEMENT TEST COMPONENTS (SAT)

Language Components
- Usage
- Punctuation
- Capitalization
- Dictionary Skills
- Sentence Sense

Mathematics Components
- Computation
- Concepts
- Applications

SEQUENTIAL TESTS OF EDUCATIONAL PROGRESS (STEP)
Language Components
Listening
Essay

INDIVIDUALLY PRESCRIBED INSTRUCTION IN MATHEMATICS (IPI)
Mathematics Components
All pre-test sections from entrance test
Individual skill and level tests, based on student skills

Although these tests served the purposes enumerated above, they fulfilled a further, and more important, program objective. Items on each of these tests could be related specifically to learning objectives stated for the educational program by both the written objectives of PICA and the detailed objectives written for or included in the study materials. Only by this relation of test items and study programs could a program like PICA (or any other well-managed learning program) assess its effectiveness. Such considerations must be made if learning programs are to succeed and be further developed.

These tests were scheduled for administration as an entrance battery and (by using alternate forms of the tests) as interim and post-Project assessment. Each student was assigned tests in this series according to his known (or approximate) reading and skill levels. This was accomplished by using one of the test "levels" most closely matching current skills (e.g., Primary, Intermediate II, or Advanced levels of the SAT).

The pre-Project testing indicated that Year 2 PICA students had a wide range of academic skills and that the instructional program needs would be beyond the range expected before testing. The following table describes the general levels of skill assessed by the most general nationally standardized tests of the battery for Year 2 students at entrance.

	Student Mean	Range	
		Low	High
GATES			
Speed	5.3	2.0	12.5
Accuracy	5.7	3.5	12.6
Vocabulary	7.8	3.4	12.9
Comprehension	7.9	2.7	12.9
MEAN	6.69	2.5	11.9
SAT LANGUAGE			
MEAN	6.1	2.0	10.6
SAT MATHEMATICS			
Computation	5.4	2.7	9.2
Concepts	6.4	2.3	11.8
Applications	6.0	2.0	10.1

Fig. 3 Academic Test Scores at Project Entrance

Consequently, large-scale program development activities were required during the entire course of Year 2 to insure that all students would have available to them instructional materials corresponding to their entering and developing skills.

Results of interim testing from the fourth Project month of Year 2 will be presented in a supplementary report.

Post-Project testing with these same instruments indicated that the following gains had been made by PICA students during their nine-month stay in the Project.

	Student Mean
GATES	
Speed	+1.4
Accuracy	+1.8
Vocabulary	+1.1
Comprehension	+1.0
MEAN	+1.55
SAT LANGUAGE	
MEAN	+0.6
SAT MATHEMATICS	
Computation	+1.4
Concepts	+1.4
Applications	+1.8

FIG. 4 Mean Student Grade Score Change on Academic Tests from Entry to Exit (September 1969 to June 1970)

Obviously, these students' grade score gains are remarkable and give evidence that the procedures used within the academic programs to effect this learning must be considered important. Further analyses of these data will be presented in a supplementary report for Year 2.

Other Tests and Assessments Used

In addition to the academic battery assembled for PICA, both a standardized intelligence test and a variety of behavioral measures were used in PICA to assess salient behavioral change.

During Year 1, PICA administered, through a psychological testing consultant, a variety of projective tests which, it was felt, might assist in diagnosing behavior pathology and/or suggesting behavioral remediation. Although no rigorous analysis was attempted with the data from these measures, it became clear that the evaluations did not assist in the conduct and development of the Project. First, these assessments tended only to confirm observations made by PICA staff and reports from the students' schools regarding the extent of behavioral deviance. Second, they did not assist in specifying either behavioral objectives for student performance or programs that could be used for shaping appropriate behavior. Consequently, all projective personality instruments were discarded from the PICA entrance battery. The intelligence assessment instruments (WISC and WAIS) were retained for the Year 2 entrance battery. It appeared that these instruments bore some relation to at least the academic components of the program and could be useful in either one of two ways:

1. as either an index of the student's capacity to learn (although this view was doubted) or some indication of his current cultural and academic skills (which seemed more reasonable); and

2. (resulting from the second part of #1), as a pre- and post-Project assessment of changes in student performance.

Pre- and post-Project administrations of these tests (depending on individual student age) were scheduled. The following represents the results of this testing.

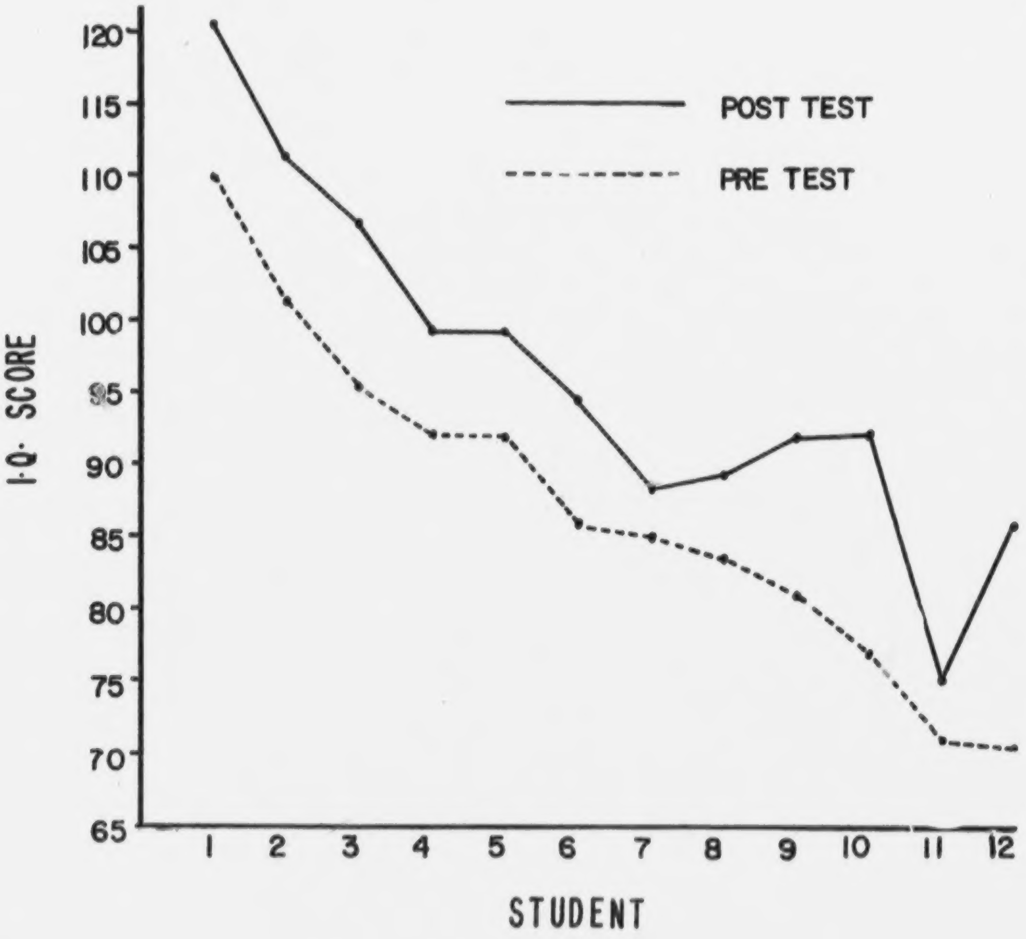


Fig. 5 Pre- and Post-Project I.Q. Test Results (WISC and WAIS) -- Ranked by Entrance Score.

Clearly, even the traditionally accepted view that the full-scale I.Q. on this testing varies only by five points cannot be accepted. These data show a range of I.Q. scores at entrance from 70 to 110, and a range at Project ending of 87 to 121, a mean increase of 9.0 points. This difference demonstrates significance at the .0005 level. The verbal subtest of this battery (entrance range, 69-119); ending range, 72-123) showed a mean increase of 6.33 points, also significant at the .0005 level. The most impressive gains were shown on the performance subtest (entrance range, 60-99); ending range, 72-115) showed a mean increase of 10.4 points, also significant at the .0005 level. The testing consultant's comments clearly indicated increased attention to the performance requirements of the tests, but also indicated dismay at the large-scale increases in scores which did not conform to traditional test theory. Further analyses of these data are in process by both PICA staff and the testing consultant and will be reported in subsequent monographs.

All available records from the students' schools were reviewed to determine the frequency of recorded inappropriate behavior in school during previous years. This review will continue through the summer between Year 2 and Year 3, as one school cannot locate records containing most information pertinent to this study; such records will be located by supervisory school personnel or reconstructed during the summer. When these data are completed, analysis will be made on the differences between pre- and post-Project performances.

Other assessments were made of behaviors occurring within the PICA environment. Such behavior is the subject of study in other sections of this report or will be reported in future publications.

CHAPTER VI
GENERAL ELEMENTS OF THE STUDY PROGRAM

Each of the elements of the PICA study program was created to play an important part in the shaping of both academic and interpersonal skills. Below is a brief description of the academic and interpersonal skills programs and their functions.

The Academic Program

The academic functions of the PICA Project were designed to fulfill three important project requirements. They are as follows:

1. The academic program was to be the principal media for aiding the students in overcoming their academic deficiencies so that they could perform academic skills at or near levels appropriate for their age.
2. Although the first function of the Project was stressed as the most important, the research objective was to provide a setting where limited and applied studies on human behavior could be conducted.
3. The academic program was also to be the vehicle through which certain school-related interpersonal, particularly self-behavior management, behaviors could be learned by the students.

The Interpersonal Skills Program

The program developed for the interpersonal skills curriculum was based on a number of behavioral objectives. These objectives, developed by the principal investigators, included four interpersonal areas:

1. Interaction with figures of authority, e.g., teachers, police, etc.
2. Interaction with family, including siblings and relatives
3. Interaction with peers, including friends and rivals
4. Self-managed behavior

PICA Activities and Class Levels

The Project activities are divided into four class levels: ungraded, third class, second class, and first class. Movement from one class to another is contingent on a student matching the stated criteria of prerequisites. The general structure of Year 2 activities and the specific prerequisites for student advancement through the program follow.

Summary Activities in Each Student Activity Level--Year 2

Activity Level and Dates of Instruction	Study Activities	Leisure Activities	Research Activities
Ungraded 9/15/69 thru 11/14/69	Math P.I. (50%) English P.I. (50%) Counseling	Lounge (10 min. pay) Bathroom Free Bench "Forced Time Out" 2/3 Pay Take Home	
Third Class 11/17/69 thru 1/31/60	Math P.I. (40%) English P.I. (40%) Behavioral Issues Class(1:38 per week) Design Science Class (1:38 per week) Counseling Rating Scales	Lounge (12 min. pay) Bathroom Free Bench "Forced Time Out" 3/4 Pay Take Home	Class Entrance Contingency Based on P.I.W.U. Earnings Per Hour
Second Class 2/2/70 thru 4/11/70	Math P.I. (35%) English P.I. (35%) Behavioral Issues (1:34 per week) Design Science (1:34 per week) Contemporary Problems (1:34 per week) Counseling Rating Scales	Lounge (18 min. pay) Bathroom "Forced Time Out" Full Pay Take Home Voluntary Savings	Class Entrance Contingency Based on P.I.W.U. Earnings Per Hour Plus Variable Payment for Class Work
First Class 4/13/70 thru 6/13/70	Math P.I. (30%) English P.I. (30%) Contemporary Problems (1:45 per week) Social Issues (2:00 per week) Individual Choice (2:00 per week) Counseling Rating Scales	Lounge (18 min. free) Bathroom "Forced Time Out" "Dismissal" Full Pay Take Home Voluntary Savings	"Error Cost" Study in P.I. Work

Prerequisites for Ungraded Level

1. The student must have met all academic and social criteria for entrance.
2. The student's parents must have agreed to participate in parent training programs.
3. The student must have completed entrance testing.

Prerequisites for Third Class Level

1. The student must have completed at least six weeks in ungraded status.
2. The student must have averaged 50% (plus or minus 2%) for English and mathematics study time over a period of four weeks, at 90% or better achievement average.
3. The student must have spent 15% or less time in the lounge, bathroom, and/or free bench activities for a period of four weeks.
4. The student must have an average of 3.5 for in-PICA behavior rating scale over the last two weeks.

Prerequisites for Second Class Level

1. The student must have completed at least six weeks in 3rd class status.
2. The student must have averaged 40% (plus or minus 2%) for English and mathematics study time over a period of four weeks at 90% or better achievement average.
3. The student must have spent 15% or less time in the lounge, bathroom, and/or free bench activities for a period of four weeks.
4. The student must have an average of 4.0 for in-PICA behavior rating scales over the last two weeks.
5. The student must have an average of 3.5 for in-School behavior rating scales for the last two weeks.
6. The student must have an average grade of 80% or better for all Design Science class work.
7. The student must have an average grade of 80% or better for all Behavioral Issues class work.

Prerequisites for First Class Level

1. The student must have completed at least six weeks in 2nd class status.
2. The student must have averaged 35% (plus or minus 2%) for English and mathematics study time over a period of four weeks at 90% or better achievement accuracy.
3. The student must have spent 15% or less time in the lounge, bathroom, and/or free bench activities for a period of four weeks.
4. The student must have an evaluation of 4.0 for his in-PICA behavior rating scales over the last two weeks.
5. The student must have an evaluation of 3.5 for his in-School behavior rating scales for the last two weeks.
6. The student must have an average grade of 90% or better for all Design Science class work.
7. The student must have an average grade of 90% or better for all Behavioral Issues class work.
8. The student must have an average grade of 80% or better for all Contemporary Problems class work.

Managing Self-Instruction

The following is a description of how programmed instruction is incorporated into the PICA program. This narrative will follow the program flow chart presented here and will be accompanied step-by-step with an explanation of these different procedures.

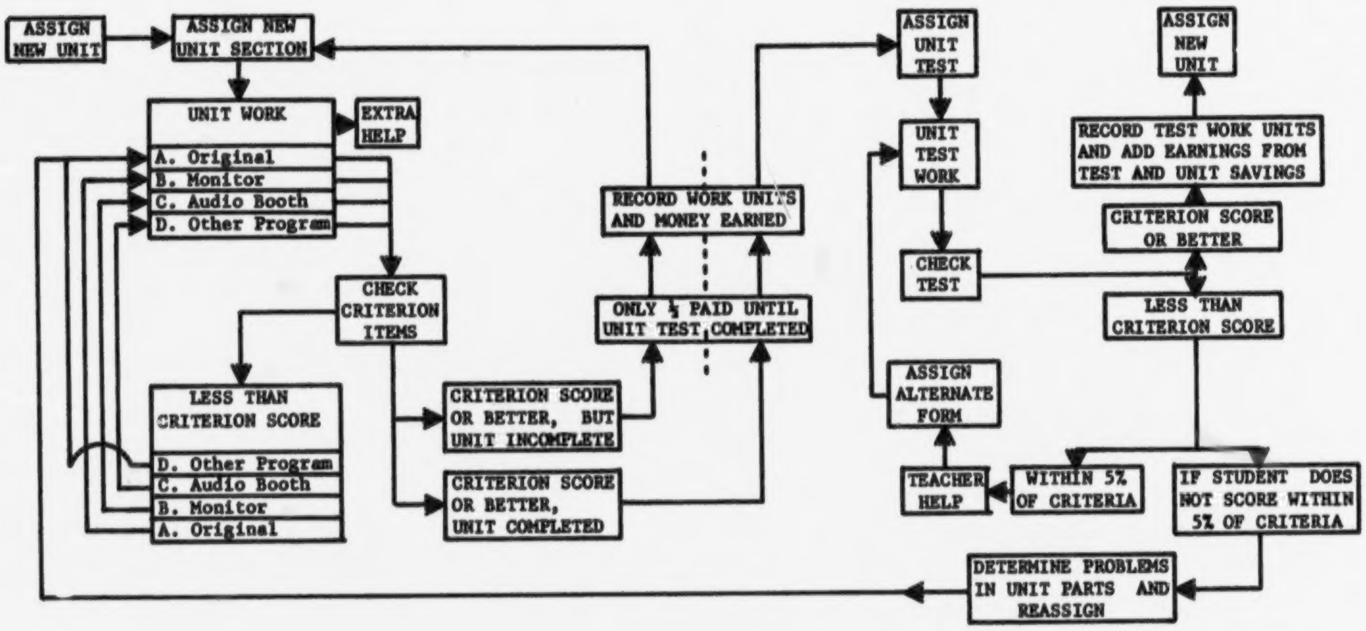

ASSIGN NEW UNIT
ASSIGN NEW UNIT SECTION
UNIT WORK
EXTRA HELP
A. Original
B. Monitor
C. Audio Booth
D. Other Program
CHECK CRITERION ITEMS
LESS THAN CRITERION SCORE
D. Other Program
C. Audio Booth
B. Monitor
A. Original
CRITERION SCORE OR BETTER, BUT UNIT INCOMPLETE
CRITERION SCORE OR BETTER, UNIT COMPLETED
ONLY ½ PAID UNTIL UNIT TEST COMPLETED
RECORD WORK UNITS AND MONEY EARNED
ASSIGN UNIT TEST
UNIT TEST WORK
CHECK TEST
ASSIGN ALTERNATE FORM
TEACHER HELP
WITHIN 5% OF CRITERIA
ASSIGN NEW UNIT
RECORD TEST WORK UNITS AND ADD EARNINGS FROM TEST AND UNIT SAVINGS
CRITERION SCORE OR BETTER
LESS THAN CRITERION SCORE
IF STUDENT DOES NOT SCORE WITHIN 5% OF CRITERIA
DETERMINE PROBLEMS IN UNIT PARTS AND REASSIGN

Fig. 6 PICA Self-Instruction Procedures Flowchart

1. Assign New Unit (or part of a new unit)	The student is assigned a specific unit or part of a unit, and is expected to complete the assigned program at a predetermined criterion level in order to receive payment (90% for most programs).
2. Work Unit A. Original B. Monitor C. Audio D. Other Program	The academic work that the student is working on may take many different forms: a book, a tape recording, and other special machines designed for a specific purpose. The four classifications (original, monitor, audio, and

	other program) do not refer to the type of program per se, but to the method of administering the program. For example: after the student is assigned a new unit, the program with original form as well as any modifications that the program may take (from a book from nouns formed into a tape presentation) is first given to the student. The other three classifications will be described shortly.
3. Extra Help	If needed, assistance from program managers is available.
4. Check Criterion Items	At this point in the student's work, the assigned program has been completed, and is now being checked by the staff to determine if the criterion level for payment and advancement has been met. At this point in the procedure the criterion is 100%. Dependent on the score and whether or not the total unit has been assigned and completed, the next step in the flow chart sequence is followed. Each of the three possible alternatives is explained below.
5. Less Than Criterion Score	As was mentioned in step 2 (Unit Work) there are four classifications or types of program presentation. Original has already been explained, and by this point in the flowchart, the original program has been used by the student. Since he has not met the current criteria of 100%, the next type of presentation is in the form of monitor as is indicated by the flow chart. Monitor takes the form of a staff member supervising the students' work, but not directly interacting with the student. As an example, the program checker may use the two way mirrors in the student's individual booth to oversee the student's progress. There is no form of interaction between the student and the staff member. After completing the assigned work,

	and assuming the student once again does not obtain a level of performance concurrent with the required criterion, he is presented with the third classification of program presentation-audio booth. In audio booth direct interaction takes place between the student and the staff member, where the staff member verbally confirms or denies the student's responses. After completing the assigned program using the audio booth method, the student's work is checked. If not completed to a satisfactory level, the next step in the procedures is to supply another program in which the procedure of original to check criterion items begins again.
6. Criterion Score or Better, but Unit Incomplete	After the criterion item check, if the student did obtain the required proficiency level, he is awarded only half of the total payment until the final unit test is completed.
7. Record Work Unit Score and Money Earned	The student is awarded money earned, and work units scored are recorded.
8. Assign New Unit	So that the student can receive payment in full (see step 6), he is assigned a new unit. He is being placed into a contract so that he can eventually complete the total unit at the required criterion level.
9. Criterion Score or Better, Unit Complete	At this point in the flow chart the student has completed the entire unit.
10. Only Half Paid Until Unit Test Complete	As in step 6, the student is only awarded half of the pay he earned until he takes and passes the unit test at the criterion level.
11. Record Work Units and Money Earned	Student is awarded money earned, and work units scored are recorded.
12. Assign Unit Test	Unit test (where student can obtain other half of pay) is now assigned.
13. Unit Test Work	Student begins work on the unit test.

14. Check Test	Unit test is checked by program checker. The two possible outcomes of the test check (criterion score or better/less than criterion score) will now be discussed.
15. Less Than Criterion Score	Student did not obtain required level of proficiency and cannot be awarded the other half of the money earned. Two possible outcomes again exist under this step. These are within 5% of criterion and greater than 5% of criterion.
16. Greater Than 5% Criterion	Student obtained a score greater than 5% from the criterion. For example, if the current criterion is 90%, anything below 85% is acceptable for this step.
17. Determine Problems Unit Parts and Reassign	After student obtains greater than 5% criterion, the reason why the student obtained this level of proficiency should be determined.
18. Assign a New Unit	After this problem is determined, a new program is assigned to remedy the problem.
19. Within 5% of Criterion	Student obtained a score within 5% of the required criteria. For example, if the criterion is 90%, anything above 85% is acceptable.
20. Teacher Help	One student can be helped by the teacher to see that the student obtains criterion level on his next attempt.
21. Assign Alternate Form	An alternate form of the unit test is assigned.
22. Unit Test Work	Unit test is taken.
23. Check Test	Unit test is checked by program checker. There are two possible outcomes: (criterion score or better/less than criterion score). Less than criterion score has already been dealt with in step 15.

24.	Criterion Score or Better	Student has obtained a score which is higher than the required criterion level.
25.	Record Test with Units and Add Earning from Test and Unit Savings	Student is now paid for the full value of the unit, and both the money earned as well as the work units scored are recorded.
26.	Assign New Unit	A new unit is assigned.

PICA Day in Detail

A typical student's day begins when he boards the PICA bus at his school and is driven to the IBR Educational Facility. As the student enters the Facility, he removes his time card from the wall rack, punches the time clock to record the time he entered, and replaces the card. The time clocks are calibrated in hundredths of an hour, so that one-half hour is recorded as 50 hundredths. The student is also responsible for "punching out" when he leaves the facility, so the time cards provide a permanent record of both the student's attendance and the time spent at PICA.

If the student has a School/PICA Behavior Rating and Homework Scale (discussed later), he places it in the proper slot next to the main time clock. These rating scales are used in cooperation with the SER's school teachers to insure that the student's behavior in class will be reported to the PICA staff. Included on these forms is a section to be filled in by the student to record homework assignments that will be due the following day. The rating scales are collected, evaluated (students are paid or deductions made accordingly) and a new sheet for the current day's classes is placed in the appropriate place in the rack.

After hanging up their coats and taking care of any personal affairs (bathroom, etc.), the students are permitted to go to the lounge area of the Educational Facility which contains a soda dispenser and candy machine. The students are allowed to remain in the lounge until they are called over the intercom by a staff member and told it is time to report to the program checking area.

Fig. 7 PICA Program Checking Area

Upon reporting to the program checking area, the students are assigned academic work in the form of programmed instruction (P.I.) or are placed in one of the classes presented during the course of the year. Among these classes are Interpersonal Skills, Design Science, Behavioral Issues, the Contemporary Classroom (study skills) and various special tutorial sessions where one student and one staff member meet for two hours per week in a specialized subject (i.e., guitar, basic electricity, office skills, etc.). The above-mentioned classes do not last for the entire morning session of PICA; the student also works on programmed instructional materials.

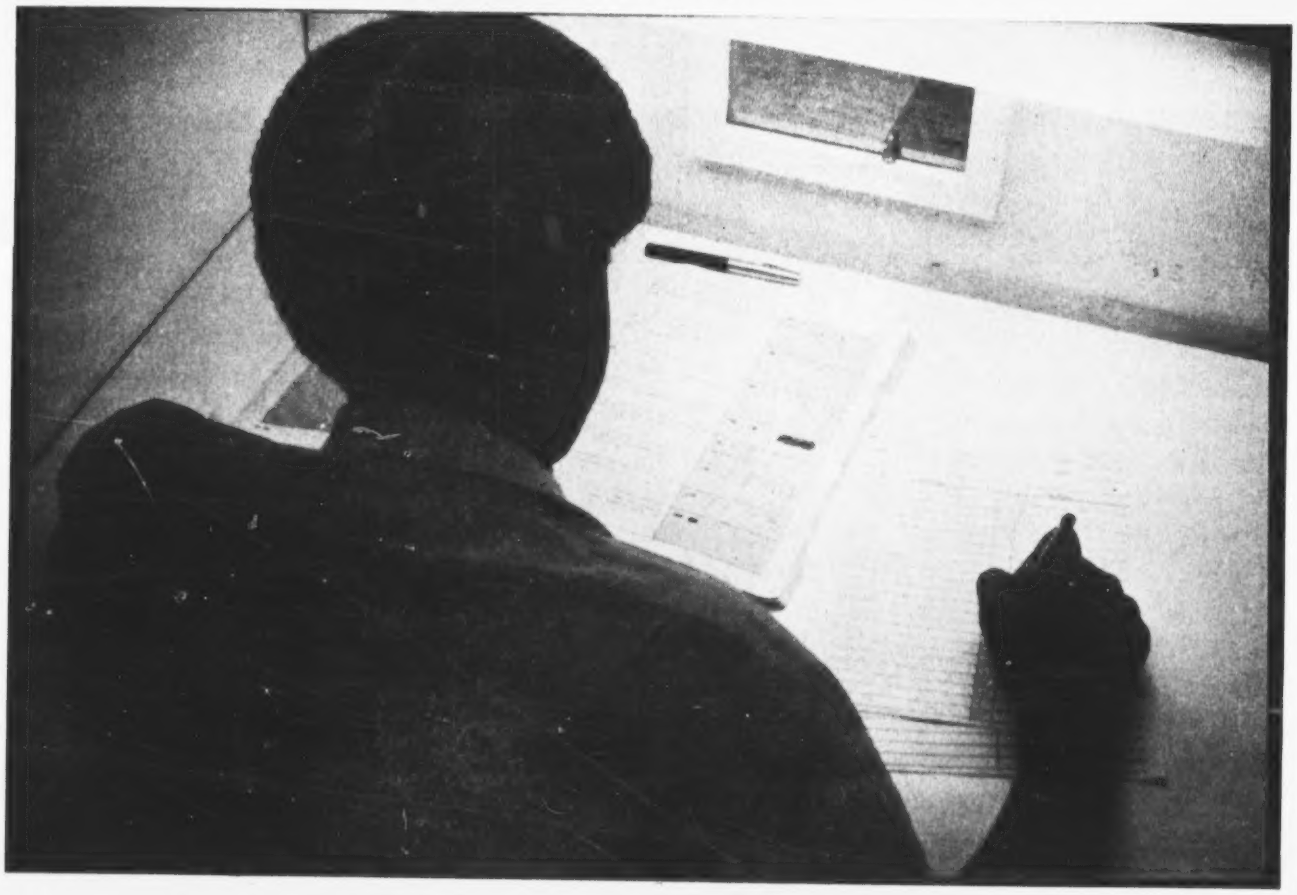


Fig. 8 Student at Work in Private Study Booth

For each activity in which the students participate, whether it be P.I., classroom activities, or staff discussion, a record of where the student is and how long the activity is taking is noted on what the staff refers to as a "pink sheet." This special form is used to record the exact length of time for each activity the student participates in. The forms are completed by the program-checking staff using the time clocks at the program checking station. As examples of the above PICA activities (self-instructional work and classes), a detailed description of a student's day is given below.

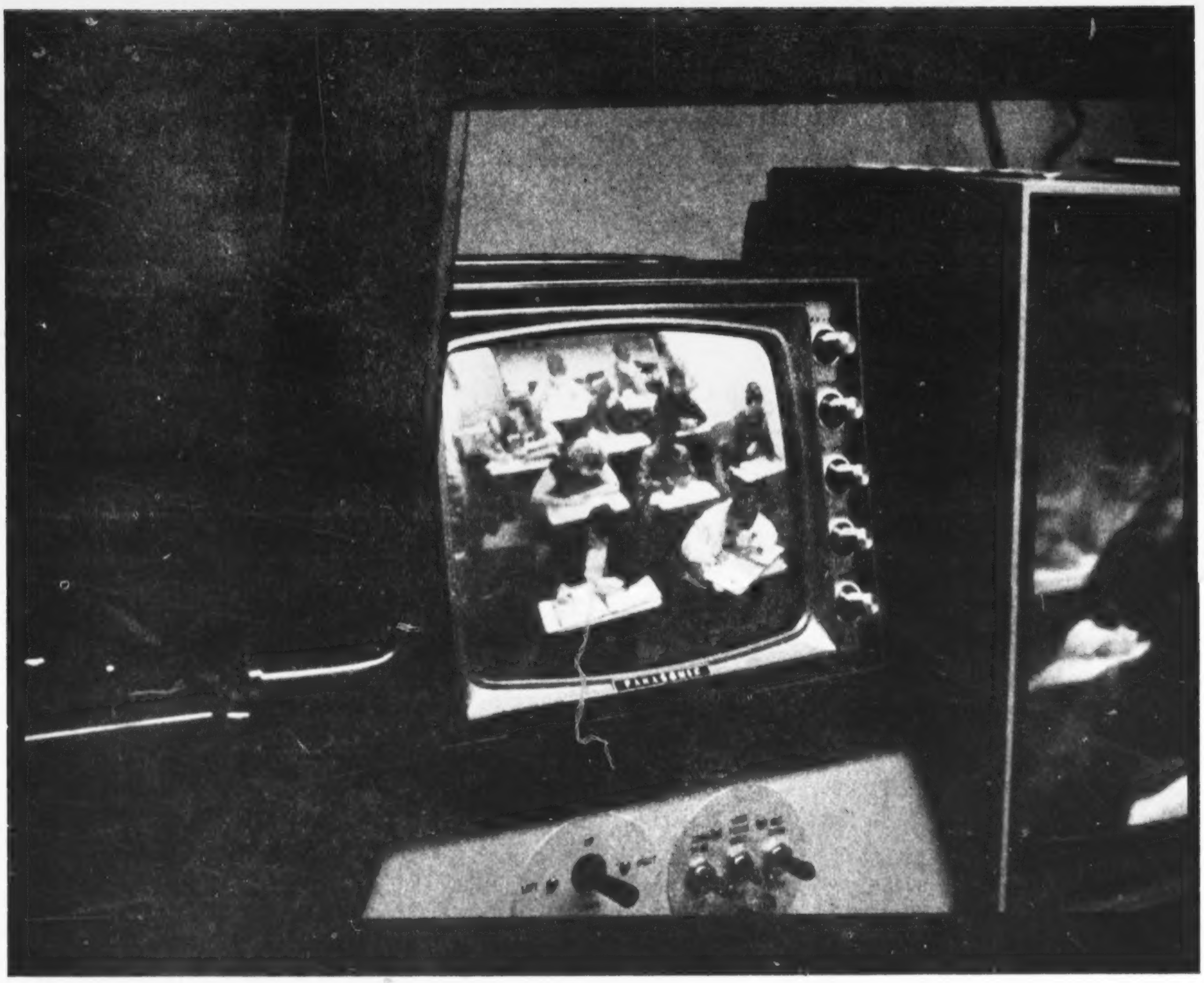


Fig. 9 Television View of PICA Class

When the student arrives at the checking station, the staff member informs him that he has a Design Science class that day. The program checker records on the student's pink sheet the appropriate symbol (in this case "cl"), initials the sheet, and stamps the time that the student was sent to the classroom. At the completion of this class, the student may go to the lounge, elect to sit on the free bench, or start programmed instructional work. The free bench is the area of the facility (across from the math side of the program checking station) where the student may sit if he does not feel like working. He is not charged for this activity, but while sitting there he is not allowed to sleep, talk, or exhibit any behavior that might interfere with the other students' work. If he elects to go to the lounge, the time that he enters the lounge is recorded on the pink sheet and the appropriate activity (L) is designated. The student is permitted to take as many lounge breaks as he wants, as long as the total amount of time spent in the lounge does not exceed the established limits of allowable lounge time. Lounge time cannot be accumulated from day to day. When the student returns from the lounge, the staff member stamps the time on the pink sheet, determines the amount of time spent in the lounge, and notes the charge, if any, to be deducted from the student's earnings.

Fig. 10 PICA Student on Lounge Break

By referring to the previous day's data, the staff can ascertain how much time the student should spend in each subject. For example, a student who has spent one hour on the previous day working on English, and one hour and 45 minutes in mathematics, must be scheduled for an extra 45 minutes in English to insure that he spends an equal amount of time in each subject. The student is given an English assignment, which he takes back to his study booth. He works independently until he needs assistance or finishes the assigned material. When this occurs, he reports to the program checker for help or to have his work checked.

All programmed instructional materials at PICA have been evaluated under a uniform system to determine the number of "work units" each program is worth. These work units in turn determine the amount of money the student will receive upon completion of the program at a specific criterion level (90% or 100%). The "work unit" evaluation system will be discussed later. The student is not paid in cash at the time he completes a program; the amount of money he has earned is recorded on the pink sheet. At the end of the PICA day, the data manager pays each student the amount he earned for that day's work. If the student does not complete the program at the specified criterion level, he may still be awarded the work units, but will not be paid until the program (or an alternate form of the program) is completed at 90% or better. In this instance, "money owed" can be held from one day to the next, until the student successfully completes the assigned work.

If at any time during the morning, a staff member feels that a student is behaving a manner that is interfering with the other students' work, the staff member may place the student on the "forced time out bench." This bench is actually the same bench used for the free time out activity. This is a rarely used tactic, but is a control available when the student refuses to behave appropriately.

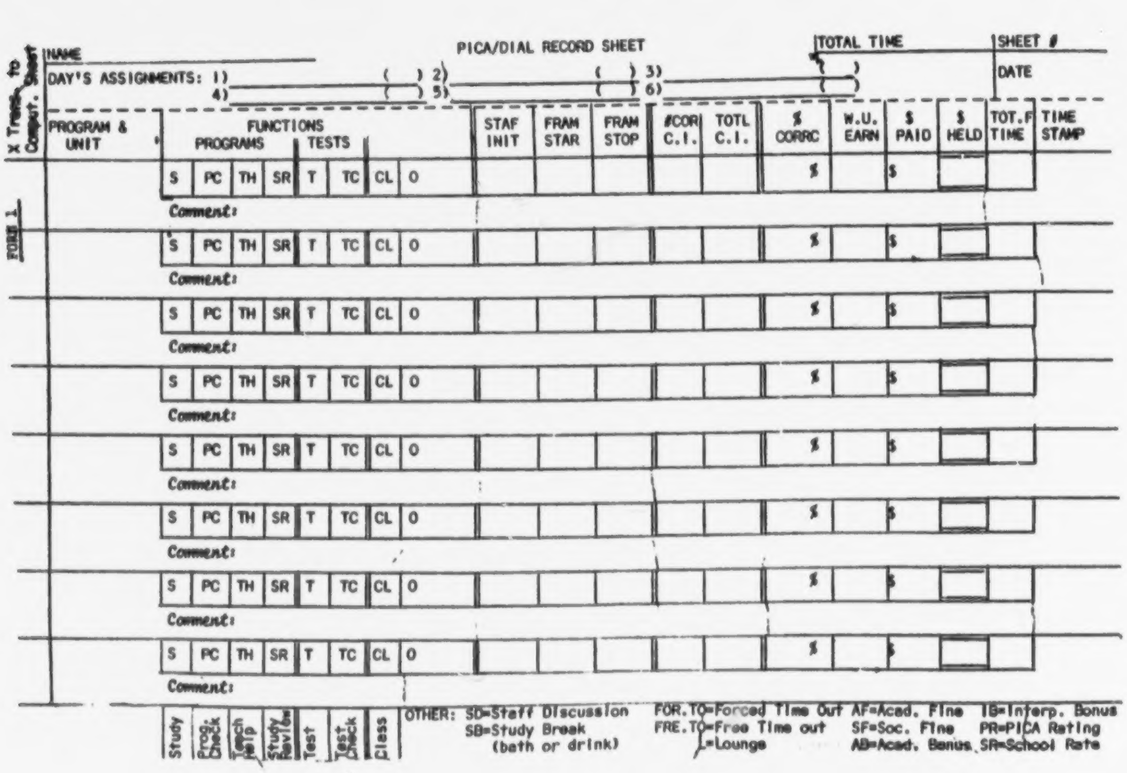
For illustrative purposes, if a student has been on the forced time out bench for more than :16, the Project Coordinator calls him into his office to discuss the reason he was placed there. After this conference, the student may be allowed to work, or may be sent back to the forced time out bench. If he continues his work, he will finish the program he started before he was placed on the forced time out bench.

The student may also, at any time, elect to go to the bathroom, or to get a drink of water. This activity is called a study break, and like the other activities, is entered on the pink sheets. At the end of the morning's work, the students are again allowed to go to the lounge without charge. Before the students board the bus that will take them back to school, they are required to pick up their School/Homework Rating Scale and punch their time card. They are then returned to school for the remainder of the day.

Managing Data

Each set of instructional materials consists of a number of sections to be studied or worked on, and a post-test at the end of each section to determine at what level of proficiency the student has mastered the work. Each section of the program has been evaluated in terms of work units, the total award being determined by a combination of work units and the student's tested level of proficiency.

To keep an accurate account of the SER's activities during the morning hours, PICA Record Sheets, or "pink sheets" are used. The program assigned, the time spent completing the assignment, the student's level of proficiency, the number of work units awarded, and other relevant information is included on these pink sheets, which are checked at the end of each day by the Project Coordinator. The sheets are then used as a basis for programming the data into a time-shared computer to compile daily and weekly records for the entire population of SERs.



x Trans. to Comput. Sheet

NAME

PICA/DIAL RECORD SHEET

TOTAL TIME ( )

SHEET #

DATE

DAY'S ASSIGNMENTS: 1) ( ) 2) ( ) 3) ( )
4) ( ) 5) ( ) 6) ( )

FORM 1

PROGRAM & UNIT	FUNCTIONS PROGRAMS				TESTS				STAF INIT	FRAM STAR	FRAM STOP	#COR C.I.	TOTL C.I.	$ CORRC	W.U. EARN	$ PAID	$ HELD	TOT.F TIME	TIME STAMP
	S	PC	TH	SR	T	TC	CL	O						$		$			
	Comment:																		
	S	PC	TH	SR	T	TC	CL	O						$		$			
	Comment:																		
	S	PC	TH	SR	T	TC	CL	O						$		$			
	Comment:																		
	S	PC	TH	SR	T	TC	CL	O						$		$			
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	Comment:																		
	S	PC	TH	SR	T	TC	CL	O						$		$			
	Comment:																		
	S	PC	TH	SR	T	TC	CL	O						$		$			
	Comment:																		
	Study	Prog. Check	Teach Help	Study Review	Test	Test Check	Class	OTHER:											

OTHER: SD=Staff Discussion
SB=Study Break (bath or drink)
FOR.TO=Forced Time Out
FRE.TO=Free Time out
L=Lounge
AF=Acad. Fine
SF=Soc. Fine
AB=Acad. Bonus
IB=Interp. Bonus
PR=PICA Rating
SR=School Rate

Fig. 11 PICA Academic Record Sheet - the "Pink Sheet"

The functions of a pink sheet may be illustrated by examining each of its component parts. On the top of each sheet, the SER's name and date are written. Each student usually accumulates more than one sheet throughout the morning. When the session is over, total time is entered on the first sheet by subtracting the time the student began his first assignment from the departing time. All times are entered in hundredths of an hour. As an example, a student, John Jones, who started working at 8:91 (in hundredths), ended his work at 11:54, for a total time of 2:63. This value of 2:63 is entered in the appropriate space marked TOTAL TIME at the top of the first page.

The next components illustrated are spaces for the day's assignments, which are derived from the previous day's work; new pink sheets are made up at the end of each study day. A computer number was assigned to each program used (e.g., SRA Reading Lab = E-0602, or Fractions, Level E = M-2501), to denote the work in which the student is presently involved. (E signifies English; M signifies math). These lines for the day's assignments show that there are three assignments for math and three for English. The parenthesis next to each assignment is used to record any earnings that are "held over" or pending completion of the total unit. (In some programs the SER is paid only partially until he has completed the final program test). Upon successful completion of the program, he is paid all previously held money.

The spaces shown below the day's assignments (X TRANS TO COMPUT SHEET) are provided to permit the computer terminal operator to check off the data from each line as it is fed into the computer.

Reading across the sheet, is the space marked PROGRAM AND UNIT, in which is noted the program and unit that the student is working on, using the appropriate computer code number.

The next component shown on the sheet is the FUNCTIONS box where are noted the possible activities in which a student may participate. The abbreviations for the specific function is circled, and the sheet stamped with the time clock when the SER begins an activity in any of these functions.

S - study, circled when a student begins work on a program;
PC - program check, circled when a program checker begins to check the student's completed program. A program check must eventually follow a study function;
TH - teacher help, circled when the student comes to the program checker, because he has encountered difficulty with the instructional materials;
SR - study review, circled when the student is sent back to his study booth to correct his work;
T - test, circled when the SER begins a test, which is to take place in the testing booth;
CL - class, circled when the SERs go to class;
O - other, circled when any of the following is entered, with specific function code written in:
    SD - staff discussion, entered when the SER is in conference with a staff member;
    SB - study break, entered when the student goes

to the bathroom or for a drink of water;

FOR TO - forced time out, used when the student is placed on the free bench for disciplinary purposes;

FRE TO - free time out, used when the student desires to sit on the free bench to rest or relax;

SR - school rating, entered when the homework sheets are totaled, the award or fine being written in the PAID column; and

L - Lounge, entered when the SER goes to the lounge;

AF & SF - codes designating academic fine and social fine, which were used infrequently;

AB & IB - codes designating academic bonus and interpersonal bonus which were used infrequently;

PR - PICA rating, a numerical score of 5-0, developed by deducting the total number of inappropriate behaviors a student showed each day and subtracting that total from 5. This was in turn converted to a grade percentile score, multiplying the result by 20.

After FUNCTIONS, the following designations are to be used:

STAF INIT - staff initial, completed by each staff member when entering any line of data on the sheet;

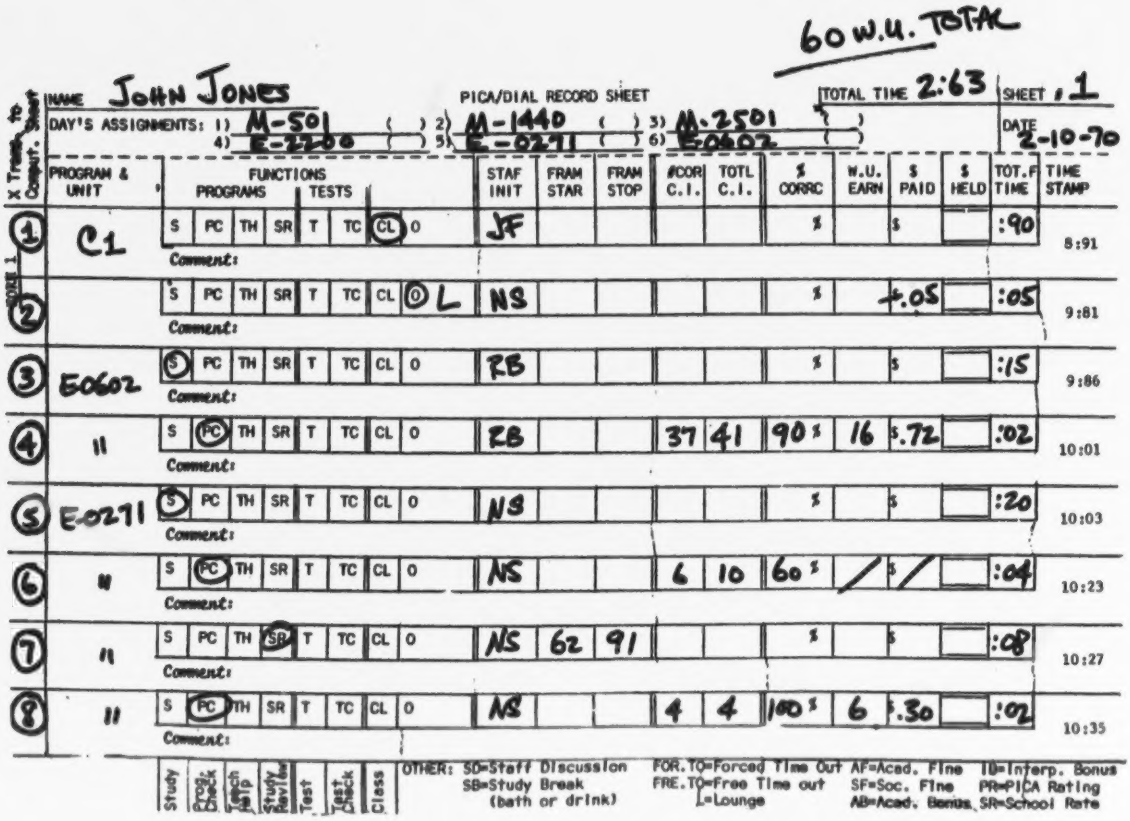
FRAM STAR - frame start;

FRAM STOP - frame stop;
These two abbreviations are used rarely; in some programs it is necessary to record the exact place where the student starts or stops;

# CORR CI and TOTAL CI - stand for number of correct criterion items, and total criterion items. A criterion item is a type of question presented at a specific time in the program to determine whether or or not the student is actually understanding the work. Dividing the number of correct criterion items by the total number of CI's yields the percentage correct or the % CORR.

The next component, W.U.EARN., stands for work units earned. $ PAID is the amount paid to the SER. The amount paid is determined by the percentage correct and the work units completed. $ HELD refers to special programs in which the SER's earnings are held over until he passes a final test; upon satisfactory completion of this test, he will be awarded his withheld funds. TOT F TIME stands for total function time for each activity.

The previous descriptions will now be illustrated, line by line, using sample pink sheets. To facilitate the descriptions, the lines are numbered on the far left hand side of the pink sheet from one through twenty-one. Each line will be analyzed.



60 W.U. TOTAL

X Trans. to Comput. Sheet

NAME John Jones

PICA/DIAL RECORD SHEET

TOTAL TIME 2:63

SHEET # 1

DAY'S ASSIGNMENTS: 1) M-501 ( ) 2) M-1440 ( ) 3) M-2501 ( )
4) E-2200 ( ) 5) E-0271 ( ) 6) E0602 ( )

DATE 2-10-70

	PROGRAM & UNIT	FUNCTIONS (PROGRAMS / TESTS)	STAF INIT	FRAM STAR	FRAM STOP	#COR C.I.	TOTL C.I.	$ CORRC	W.U. EARN	$ PAID	$ HELD	TOT.F TIME	TIME STAMP
①	C1	S PC TH SR T TC [✓ CL] O	JF					$		$		:90	8:91
②		S PC TH SR T TC CL [✓ O] L	NS					$		-.05		:05	9:81
③	E0602	[✓ S] PC TH SR T TC CL O	RB					$		$		:15	9:86
④	"	S [✓ PC] TH SR T TC CL O	RB			37	41	90 $	16	$.72		:02	10:01
⑤	E-0271	[✓ S] PC TH SR T TC CL O	NS					$		$		:20	10:03
⑥	"	S [✓ PC] TH SR T TC CL O	NS			6	10	60 $	/	$ /		:04	10:23
⑦	"	S PC TH [✓ SR] T TC CL O	NS	62	91			$		$		:08	10:27
⑧	"	S [✓ PC] TH SR T TC CL O	NS			4	4	100 $	6	$.30		:02	10:35

Comment:

Study | Prog. Check | Teach Help | Study Review | Test | Test Check | Class

OTHER: SD=Staff Discussion
SB=Study Break (bath or drink)
FOR.TO=Forced Time Out
FRE.TO=Free Time out
L=Lounge
AF=Acad. Fine
SF=Soc. Fine
AB=Acad. Bonus
IB=Interp. Bonus
PR=PICA Rating
SR=School Rate

Fig. 12 Pink Sheet Example #1

Line 1 - C1 is entered and C1 is circled since the SER has just gone into class. The initials of the staff member are entered and the time is punched under the TIME STAMP column. The entry time is 8:91.

Line 2 - Since the student has just come back from class and wants to take a lounge break, the program manager gives him a lounge slip and punches him into the lounge at 9:81. (Note L in "Other.") We can now compute the total function time spent in class by subtracting 8:91 from 9:81. Our value of :90 is then written into the total function time box and a record of the amount of time spent in class is now present.

Line 3 - The student returns at 9:86, and begins work on an English program. Since the difference in time (and the total function time) is :05, the Lounge break "cost" the SER five cents or one cent for each hundredth. (Note: -:05 entered in "Paid" on line 2). The program number is entered in the appropriate place and the function "S" is circled.

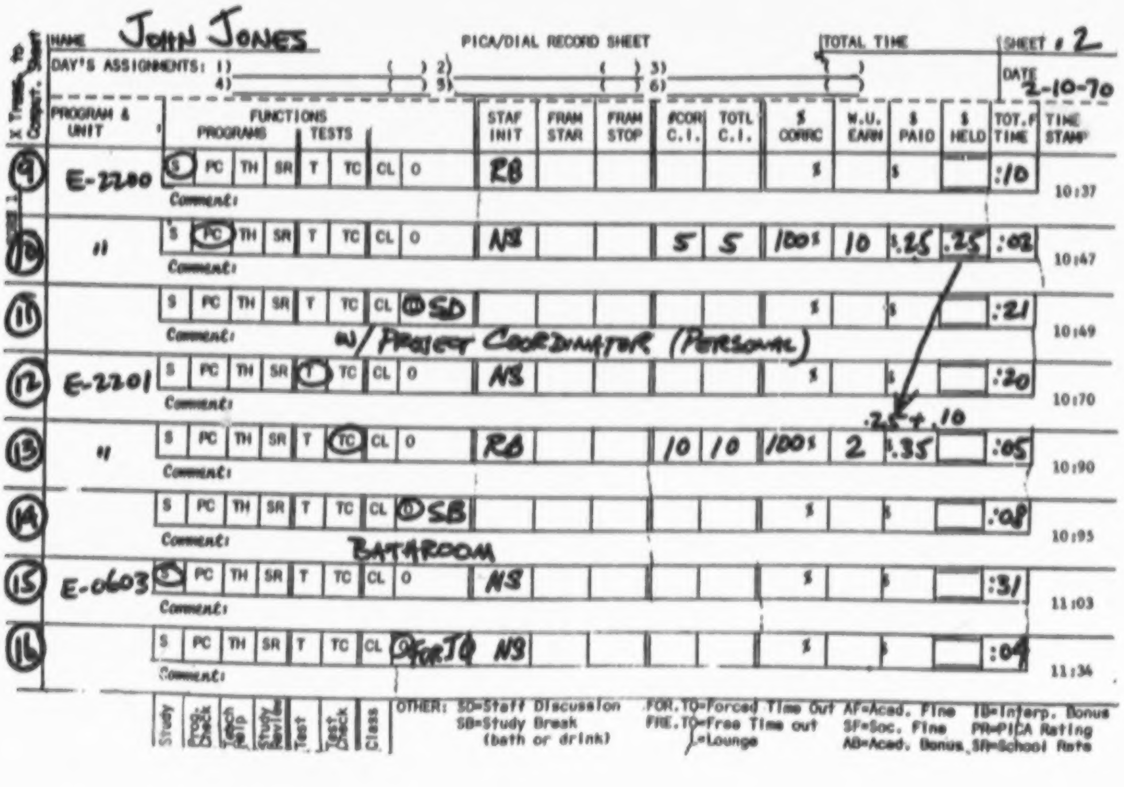
Line 4 - The student has finished the program (E-0602) and is now given a program check. Punching in the time when the student requested the program check, we see that the time the student was under the study function was :15 hundredths of an hour. On the program check the student obtained 37 correct out of a possible 41, giving him a percentage of 90%. At an accuracy level of 90%, 16 work units is worth $.72, which is recorded under $ PAID.

Line 5 - The student is assigned a new program (E-0271).

Line 6 - The student's program is checked, but his score does not fulfill the criterion level, and he must recheck his work and correct his mistakes.

Line 7 - The student is correcting his work, and this is appropriately recorded under SR, or study review.

Line 8 - After he feels that he is ready to reach the 90% criterion level, the student requests another program check. If he receives 90%, he is awarded the work units and his earnings are recorded in the $ PAID column. If he does not reach the required level of performance, he is sent back for further study or review or given teacher help. John Jones attained 100%.



NAME John Jones
PICA/DIAL RECORD SHEET
TOTAL TIME
SHEET # 2
DAY'S ASSIGNMENTS: 1) ( ) 2) ( ) 3) ( )
4) ( ) 5) ( ) 6) ( )
DATE 2-10-70

	PROGRAM & UNIT	FUNCTIONS (PROGRAMS / TESTS)	STAF INIT	FRAM STAR	FRAM STOP	#COR C.I.	TOTL C.I.	% CORRC	W.U. EARN	$ PAID	$ HELD	TOT.F TIME	TIME STAMP
⑨	E-2200	[✓ S] PC TH SR T TC CL O	RB					%		$		:10	10:37
		Comment:											
⑩	"	S [✓ PC] TH SR T TC CL O	NS			5	5	100%	10	$.25	.25	:02	10:47
		Comment:											
⑪		S PC TH SR T TC CL [✓ O] SD						%		$		:21	10:49
		Comment: w/ Project Coordinator (Personal)											
⑫	E-2201	S PC TH SR [✓ T] TC CL O	NS					%		$		:20	10:70
		Comment:								.25 + .10			
⑬	"	S PC TH SR T [✓ TC] CL O	RB			10	10	100%	2	$.35		:05	10:90
		Comment:											
⑭		S PC TH SR T TC CL [✓ O] SB						%		$		:08	10:95
		Comment: Bathroom											
⑮	E-0603	[✓ S] PC TH SR T TC CL O	NS					%		$		:31	11:03
		Comment:											
⑯		S PC TH SR T TC CL [✓ O] FOR TO	NS					%		$		:04	11:34
		Comment:											

Study | Prog. Check | Teach Help | Study Review | Test | Test Check | Class

OTHER: SD=Staff Discussion
SB=Study Break (bath or drink)
FOR.TO=Forced Time Out
FRE.TO=Free Time out
L=Lounge
AF=Acad. Fine
SF=Soc. Fine
AB=Acad. Bonus
IB=Interp. Bonus
PR=PICA Rating
SR=School Rate

Fig. 13 Pink Sheet Example #2

SHEET #2
Line 9 - The SER is placed in another English program.

Line 10- The student has his program checked and receives 100%, which entitles him to payment of 10 work units or $.50. But since this is designated as a special program, one-half of the total amount is held until the student passes the test.

Line 11- The SER is called for a brief staff discussion with the Project Coordinator. Function 0 is so designated.

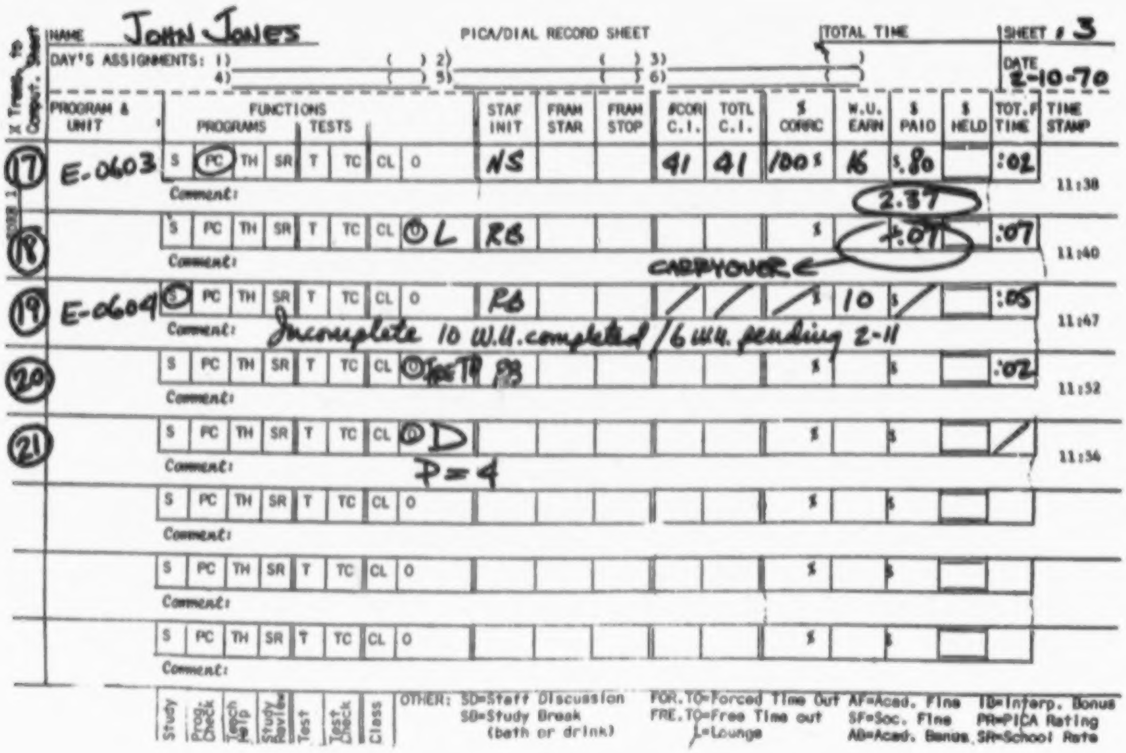
Line 12- The student is given a test, for which T is circled.

Line 13- The student has passed the test at a level of 100%, and is paid the money that was being held in line 10. He now receives credit for the test (2 work units or $.10, plus the money held ($.25), or a total of $.35 in the PAID box).

Line 14- The student takes a bathroom break and the appropriate function, SB, is entered in the "O" box.

Line 15- The student is assigned a new program, (E-0603), and function S is circled.

Line 16- The student misbehaves and is placed on the free bench, "O" is circled, and the designation inserted: FOR TO (forced time out). He remains on the free bench until the project coordinator releases him.



NAME John Jones PICA/DIAL RECORD SHEET TOTAL TIME SHEET # 3

DAY'S ASSIGNMENTS: 1) ( ) 2) ( ) 3) ( ) 4) ( ) 5) ( ) 6) ( ) DATE 2-10-70

	PROGRAM & UNIT	FUNCTIONS PROGRAMS TESTS	STAF INIT	FRAM STAR	FRAM STOP	#COR C.I.	TOTL C.I.	$ CORRC	W.U. EARN	$ PAID	$ HELD	TOT.F TIME	TIME STAMP
⑰	E-0603	S [✓ PC] TH SR T TC CL O	NS			41	41	100$	16	$.80		:02	11:38
		Comment:								2.37			
⑱		S PC TH SR T TC CL [✓ O] L	RB					$		+.07		:07	11:40
		Comment:				CARRYOVER ←							
⑲	E-0604	[✓ S] PC TH SR T TC CL O	RB			/	/	/ $	10	$ /		:05	11:47
		Comment: Incomplete 10 W.U. completed / 6 W.U. pending 2-11											
⑳		S PC TH SR T TC CL [✓ O] FOR TO	PB					$		$		:02	11:52
		Comment:											
㉑		S PC TH SR T TC CL [✓ O] D						$		$		/	11:56
		Comment: P=4											
		S PC TH SR T TC CL O						$		$			
		Comment:											
		S PC TH SR T TC CL O						$		$			
		Comment:											
		S PC TH SR T TC CL O						$		$			
		Comment:											

Study, Prog. Check, Teach Help, Study Review, Test, Test Check, Class

OTHER: SD=Staff Discussion
SB=Study Break (bath or drink)
FOR.TO=Forced Time Out
FRE.TO=Free Time out
L=Lounge
AF=Acad. Fine
SF=Soc. Fine
AB=Acad. Bonus
IB=Interp. Bonus
PR=PICA Rating
SR=School Rate

Fig. 14 Pink Sheet Example #3

SHEET #3

Line 17- The student is allowed to return to work and has his program checked. Since he has obtained the required level of proficiency, he is paid. Inserted in between lines 17 and 18 is recorded the total sum that the SER has earned up to that time. Any further money will be carried over to the next day. This technique of carrying over will be explained shortly.

Line 18- The student takes a lounge break.

Line 19- The SER returns to work and is assigned program E-0604.

Line 20- In the middle of his work, the student decides that he wishes to sit on the free bench until departure time. Therefore, incomplete is recorded on line 19 with units completed noted.

Line 21- The student departs and a PICA Behavior Rating of 4 is given to the student. This behavior rating is based on the student's performance as judged by all the staff during the day and can range from 5 (excellent) to 0 (poor behavior).

Completing the Pink Sheets

Several situations can arise in filling out pink sheets for the next day, and these are illustrated in sheet #1 made out for John Jones for the date 2-11-70.

Before filling out a new sheet, it is necessary to complete the pink sheet of 2-10-70, using the following steps:

1) Compute all individual function times by subtracting the smaller from the larger function time, e.g., lines 15 and 16 show that the study function took the student (11:34 - 11:03) = :31 or thirty one/hundredths of an hour.

2) Next, the total of these times is entered at the top of the first sheet. In this case the total time is 2:63.

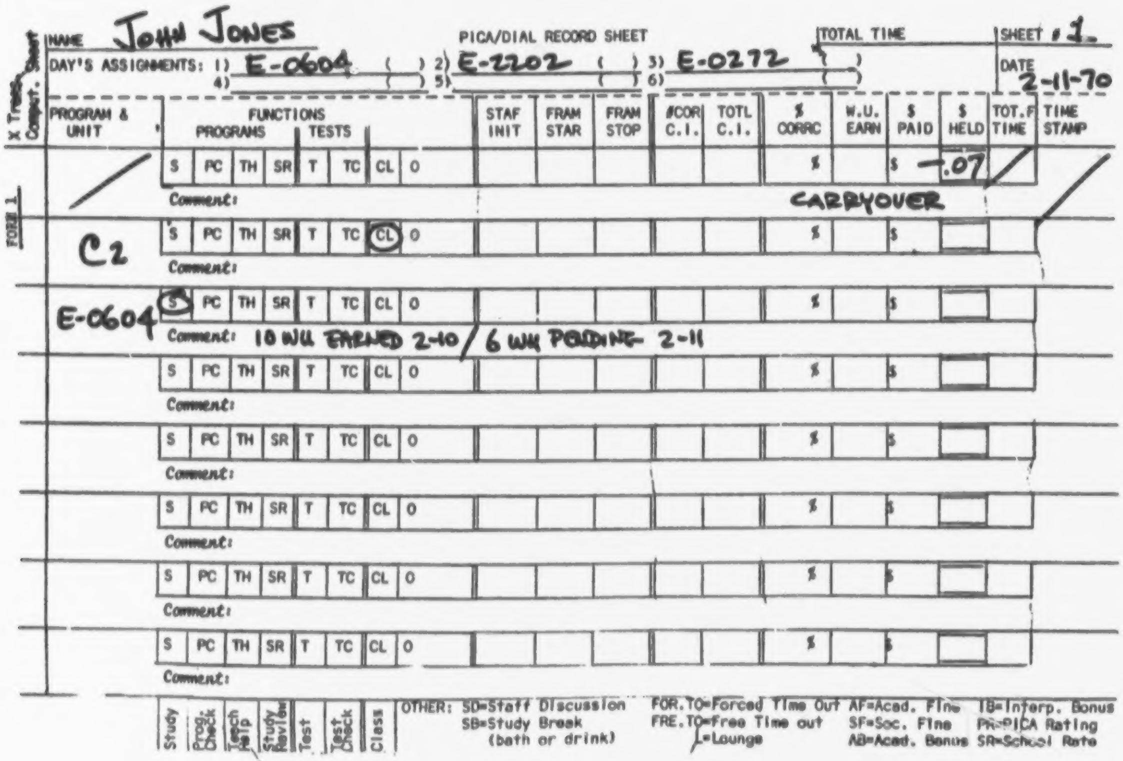
3) Add up all the values under the column of work units, and enter on the upper right hand part of the sheet. In this case the total is 60 work units, or 60 W.U.

4) Lines 18 and 19 present us with values that must be carried over to the next day's pink sheet; line 18 since the lounge break was taken after the total pay was computed, and line 19 since the student did not finish the assignment.

5) Circle any financial carryovers so that they can be easily seen (i.e., line 18).

6) Since the student did do some of the work in program E-0604, he should be given a proportionate amount of the work units, but he is not paid until completion of the program at 90% or better.

Filling Out the Following Day's Pink Sheets



PICA/DIAL RECORD SHEET

NAME John Jones

DAY'S ASSIGNMENTS: 1) E-0604 ( ) 2) E-2202 ( ) 3) E-0272 ( )
4) ( ) 5) ( ) 6) ( )

TOTAL TIME

SHEET # 1.

DATE 2-11-70

X Trans. Comput. Sheet

FORM 1

PROGRAM & UNIT	FUNCTIONS: PROGRAMS / TESTS	STAF INIT	FRAM STAR	FRAM STOP	#COR C.I.	TOTL C.I.	$ CORRC	W.U. EARN	$ PAID	$ HELD	TOT.F TIME	TIME STAMP
	S PC TH SR T TC CL O						$		$ -.07			
Comment: CARRYOVER												
C2	S PC TH SR T TC [✓ CL] O						$		$			
Comment:												
E-0604	[✓ S] PC TH SR T TC CL O						$		$			
Comment: 10 WU EARNED 2-10/6 WU PENDING 2-11												
	S PC TH SR T TC CL O						$		$			
Comment:												
	S PC TH SR T TC CL O						$		$			
Comment:												
	S PC TH SR T TC CL O						$		$			
Comment:												
	S PC TH SR T TC CL O						$		$			
Comment:												
	S PC TH SR T TC CL O						$		$			
Comment:												

Study, Prog. Check, Teach Help, Study Review, Test, Test Check, Class

OTHER: SD=Staff Discussion
SB=Study Break (bath or drink)
FOR.TO=Forced Time Out
FRE.TO=Free Time out
L=Lounge
AF=Acad. Fine
SF=Soc. Fine
AB=Acad. Bonus
IB=Interp. Bonus
PR=PICA Rating
SR=School Rate

Fig. 15 Pink Sheet Example #4

1) Write the student's name, date, and page number in the appropriate spaces at the top of the page.

2) Copy in the day's assignments, or the assignments which follow the ones that the student has completed the previous day. In this case the student has completed programs E-2200 and E-2201. The next program in that series is E-2202. The same is true with E-0271 in that the next program in that series is E-0272. Programs are not always one digit apart, and the student may go from E-6556 to E-6561, depending on the program. If there is any question, the program checker checks with the curriculum developer for the correct computer numbers.

3) If there are any financial carryovers, they are entered on the first line. We have a carryover in this student's case of -$.07, and it is entered on line 1A.

4) If the student has class the following day, an indication of this should follow the carryover. Circle class, ond write down C1, C2, or C3, depending on which class meets that day. (line 2A).

5) Copy the assignment to be completed, and enter all the pertinent information regarding that assignment, such as work units earned on the previous day, and work units to be completed. Circle S for study, so that the person handling the pink sheet the following day will be aware of the situation. An example of this can be found on line 3A.

Earnings

Being a Student Educational Researcher and working in PICA as though he is on a "work-study" program each individual earns wages for his performance and the money that he earns is his to spend as he sees fit. There are three general kinds of activities for which the SER earns money.

1. Work that the SER does on self-instructional material and tests;

2. Work that the SER does in classes and seminars; and

3. Good behavior which the SER exhibits during PICA and in his school classes.

Each of these three methods of earning money is discussed below.

Earnings for Self-Instructional Work and Tests

Each unit of every program the SER works on in PICA has absolute and maximum point value (which is convertible to cash). When the student finishes studying a unit, and passes the test covering that unit (both at least 90% or better), he will be given credit for that unit. The pay records will then be credited with the amount specified for that unit. The SER is then paid a proportion of the unit value, based upon the percentage that he obtained on the test. For example, if the SER completes a unit worth 18 work units (or W.U.) at 95% accuracy, the student receives 95% of $.05 (value of 1 W.U.) times 18 which is $.90. The student receives $.86 total award for that unit.

Earnings for Classes and Seminars

The pay that the SER receives for classes and seminars is awarded for different kinds of activities than for the self-instructional materials. Seminar and class pay is based on the following things:

1. Tests that are taken in class or in seminar;

2. How well the student pays attention, and exhibits appropriate behavior;

3. How much the student participates in discussions and other class activities.

All tests taken in class are graded immediately following the class or seminar. The points which were earned for attention and participation will be added to the test earnings, and will also be included in the total award. The amount of pay differs with each class, but usually compares to what the SER would have earned if he were studying self-instructional materials.

Final data for Year 2 reveal that students were paid for their work in PICA at a rate less than they would have earned on a commercial job. Earnings for English study work averaged $1.31 per hour and the average rate for math work was $1.11 per hour. The earnings for all classes averaged $1.36 per hour. Average pay for all hours at PICA (including leisure time and fines deducted and added bonuses) was $1.18 per hour. The total amount expended as direct monetary payment to students through the year was $4,194.68.

These figures indicate a general earnings discrepancy between the two major curriculum areas that was consistently evident to the students and staff managers. No arbitrary manipulations were attempted to equate the payment for these two program areas as the differential payment clearly resulted from two distinct system variables:

1. The "work unit" system, on which all pay formulas were based, appeared biased through some major components of its evaluation matrix. This system could not be adjusted until a quantity of longitudinal data had been gathered (one year was considered to be the minimum time) by which the re-evaluation could be managed.

2. The program management procedures for English and mathematics study work were slightly different, but in some instances biased in favor of, or permitting students to complete, English work at less than the 100% or 90% math criteria.

The results of these findings have forced PICA to closely monitor all student work during Year 2 to insure that no major discrepancies were uncovered. The earnings and "work unit" data are currently undergoing detailed review to isolate both the major sources of variance between program units and the underlying biases in the work unit evaluation system. The results of this review will be used to revise Project procedures for Year 3.

Fines and Bonuses

A system of fines for inappropriate behavior and bonuses for appropriate behavior was designed into the project. This system was stated to the students in their introductory handbook and was designed as the base for two different operations:

1. The daily conduct of behavior management procedures where students could be given clear confirmation of appropriate and inappropriate behaviors. This carried through a number of project functions, including in-project activities and programs in the schools and homes (described elsewhere).

2. The development of behavior modification studies for in-PICA activities relating to both academic and interpersonal events.

The second operation was most clearly associated with the research functions of the project and followed models of behavior modification techniques long practiced in the field. As the project progressed, it became increasingly evident that no serious and persistent misbehaviors were occurring. When such misbehavior occurred, the application of singular punitive consequences (of the kinds described below) terminated the behavior. Therefore, no formal presentation can be made of long-term behavior modification studies. Clinical objectives influenced decision making in this area. It appeared that the overall formulation of the project (clear-cut procedures, consistent application of these procedures, academic and social programs graded to the student's individual skills, immediate knowledge of results, and appropriate consequences) was prompting, directing, and maintaining behaviors that were consistent with both stated and implied objectives. Because such behavior was being maintained, decisions were made not to disrupt most on-going appropriate behavior to gain experimental objectives. Where such manipulations were made, they will be the subject of specific articles in professional journals.

The first operation noted above required that a specific set of behaviors be proscribed and their consequences enforced. A dual set of inappropriate behaviors was specified for the students and staff: major offenses and minor offenses. These are listed below as stated in the PICA Student Handbook.

The following inappropriate behaviors will warrant a major fine:

Fighting (with other student or staff)
Sexually abusive language (or gestures)
Racially abusive language
Destruction of property
Intentional injury (of staff or student)
Sleeping other than in lounge or free bench
Repeatedly disturbing other students
Cheating on educational material
Theft
Indecent exposure

Mutilating study or answer materials
Use of drugs or alcohol
Eating, smoking, or drinking in study booth
Disruptions on the bus

The following inappropriate behaviors will warrant a minor fine:

Talking to student working on test or study materials, or while at Program Checking area
Defacing study area or booths
Talking, singing, laughing, or loud disruptions in study area or lounge
Visiting other students in study booths
Wandering out of study area without permission (front of classrooms, etc.)
Yelling out of or gesturing from bus
Removal of clothing or wearing clothing other than that accepted by the schools
General horseplay or tomfoolery
Keeping untidy study booth
Walking into Program Checking area
Playing with testing devices
Handling answer keys
Feet on desks or walls
Handling or fondling between students and staff
Not wearing seat belts in bus

Incidents of these behaviors averaged less than two per day for all students during the entire year, all but eight falling into the "minor" category for the entire year. The staff found it possible to dispense with wearing behavioral incident counters they were wearing on their wrists except for certain special studies done with a limited number of students (none of these behaviors as "serious" as those noted in the listing above).

Similarly, a system of awarding bonuses for appropriate behavior was devised, explained to the students, and used consistently by the staff.

Handling Bonuses

As in fines, bonuses were of two general types, academic and social. Unlike fines, which were awarded only by staff having long-term close contact with the student, bonuses were awarded by each individual staff member who had some contact with the students. These staff members were: the project director and coordinator, other principal investigators, program managers, class teachers, bus driver, and secretarial staff.

Bonuses were given only for desired and acceptable behavior of a remarkable kind. They ranged however, through a variety of types: (e.g.,)

Maintaining "cool" on test
Clear and legible handwriting
Speaking courteously to student or staff member
Non-required clean-up or maintenance

Volunteering information
Extra "good" performance on difficult study or test materials
Helping to maintain "order" in facility
Assisting fellow SER on assigned task (non-academic)

Bonuses were not of large value and numerous smaller bonuses were preferred.

Unlike the findings regarding fines, appropriate behaviors were apparently supported and enhanced by the general PICA system. Consequently, after an initial burst of bonus awards near the beginning of the project, a decision was made to discontinue the practice of monitary bonuses through a pairing with verbal approval by the awarding staff member and slowly decreasing the bonus amount. It is a moot point whether this practice was even necessary, given the consistent reinforcement for appropriate study behavior in the project through monitary awards and staff approval. For most of the year, the project operated without a systematic application of bonuses for appropriate behavior outside that provided by the normal operations of the project.

Student Savings

The overall plan for PICA specified that the students would be required to save 1/3 of their earnings during Activity Level Ungraded and 1/4 of their earnings in Activity Level #3. Thereafter, students would be free to draw all of their daily pay. However, once pay had been deposited in their savings account, it could not be drawn out until the end of the year, and only after completion of the final project testing. This was an attempt to discourage "dropping out."

Over the course of the year, PICA students saved a total of $881.17, which was paid to them on the final project day. This was 21% of the total earnings. The students' discretionary savings after the third Class Activity Level totaled $250.22, 12% of the total earnings during the last two project Class Levels. One student saved $68.09 during this period, 46% of her total earnings. All students saved some amount (however small) after the forced savings was terminated. Another student elected not to save in the PICA plan (which did not earn interest) but banked $137.10 of his earnings at a public bank.

CHAPTER VII
THE ACADEMIC CURRICULUM

The following is a brief description of the PICA mathematics and English language curricula used during Year 2. Most program development activities of Years 1 and 2 are not covered in this chapter. Specific references to program development in the academic curriculum are made in the Year 1 Report and detailed analyses of both the program development and evaluation will be available in subsequent supplementary reports.

The Mathematics Curriculum

To be eligible for PICA, a student must be in academic difficulty. Since this meant that PICA would be dealing with students of widely varying abilities, a widely diversified instructional program was needed. The entering SAT grade levels showed this to be true in mathematics. The students' scores ranged from 2.3 grade level to 11.6 grade level.

IPI (Individually Prescribed Instruction), available through Research for Better Schools, Philadelphia, Pa., was chosen as the basic program of the mathematics curriculum. This program consists of twelve skill areas covered at seven grade levels, K-6 (actually, well into 7th and 8th grade material). These levels are named by letter, A-G. The skill areas in IPI are numeration, place value, addition, subtraction, multiplication, division, combination of process, fractions, time, money, systems of measurement, geometry, and special topics. (Special Topics is a topic area that presents new areas of instruction that are supposedly unique to the student; therefore, there are no "Mathematics Placement Tests" for these skills). Most of the mathematics programs used in Year 1 were discarded in favor of this new program. This change necessitated a thorough reorganization of the general math objectives and procedures.

There are 372 skills to master in the IPI continuum. Each skill has a specific behavioral objective written for it and a minimum acceptable criterion stated for the objective.

Each grade level is pretested with the "Mathematics Placement Test" to determine a student's deficiencies in the skill areas. When a deficiency is found, the "Mathematics Pretest" for the skill area is administered to isolate the specific skill or skills that the student is lacking in that skill area. The skill booklet for the specific skills the student is lacking is then prescribed. Each specific skill is posttested with the "Curriculum Embedded Tests," (CET) which are written for each skill booklet. A subpart of the CET is a pretest for the next skill in the continuum. According to PICA procedures, the minimum acceptable score on the skill pages is 100% and 90% on all testing. The student continues to work through the grade levels until he exhibits mastery of all specific skills in the continuum by scoring 90% or better on posttesting.

When pretested, each student exhibited very erratic performance acorss the skill areas mentioned. The first objective was to work on the weak areas indicated by the IPI testing, so that the student's skills were all on the same grade level. Then, each student continued through the continuum until completion of all the stated objectives, or end of the Project year.

The IPI program served as the basic program of the mathematics curriculum, but there were specific areas that the program did not cover adequately. The most troublesome were: prime factorization, elementary multiplication, fractions, systems of measurement, and division of decimals. Because of these weaknesses in the IPI program, the staff was forced to supplement the curriculum with a number of other programmed courses. The major supplementary programs are listed below in conjunction with the parts of IPI they amplify.

Major Supplemental Programs	IPI Skill Areas & Levels
Ruler Reading (a unique program taught entirely without written instructions)	Systems of Measurement, Levels B, C, D
Mathematics 204 (multiplication up to 10 x 10) (2 x 2 to 10 x 10)	Multiplication, Levels D, E
Graflex Multiplication (basic multiplication)	Multiplication, Levels D, E
Mathematics 205 (basic fractions, 3rd grade reading ability)	Fractions, Levels A - E
Graflex Fractions (basic fractions)	Fractions, Levels A - D
Graflex Perimeters (intermediate geometry skills)	Geometry, Levels E, F, G
ASMD (basic and intermediate addition, subtraction, multiplication, and division skills, 7th and 8th grade, high school, no decimals)	Addition, Levels B - F Subtraction, Levels B - E Multiplication, Levels D - F Division, Levels D - G
Mathematics 206 (decimal calculations, basic and intermediate, 4th and 5th grade)	Numeration, Levels D, E Place Value, Levels C - F
Decimals and Percents (knowledge of fractions needed plus long division. Covering three possible types of basic per cent problems)	Numeration, Levels D, E Place Value, Levels C - F Combination of Processes, Level C
Understanding Fractions (objectives range from "Meaning of the Word Fraction" to "Factoring and Fraction Problems")	Fractions, B - G
Ratio and Proportion	Special Topics, Level F
Understanding the Metric System (6th, 7th, and 8th grade level. Teaches nomenclature	Systems of Measurement, Levels E, F, G

and basic conversions)	
Programmed Modern Arithmetic (introduction to set, sub-set, Venn Diagrams and signed numbers	Special Topics, Level G

Unlike IPI, most of the supplementary programs are fully "programmed" and have confirming answers. These programs are "test framed." In test framing, an average of one in every fifteen confirming answers is blanked out. This gives the program checker a quick check of the student's mastery of the program. The confirming answers to be blanked out are chosen after closely examining the behavioral objectives stated and relating these to the frames. On these test framed programs, the student must score 100% on the test-framed items. The other procedures for handling the program are the same as for IPI. The student is returned to the IPI continuum as soon as the specific skill or skills are mastered.

One other program must be mentioned. Once the student has exhibited mastery of the IPI program by completing all items on the G level "Mathematics Placement Test," he is given the Algebra I COP test. The student is then placed in TT 501 - TT 502, which is a complete Algebra I program, containing 27 units. Each unit covers an area of algebraic concepts. The program is test framed and pre- and posttested. Two students worked extensively in the Algebra program. One completed 14 units and the other completed 23 units. They scored in the 27-60 and 79-96 band, respectively, on the Algebra I COP posttesting.

The areas of the mathematics curriculum that require extensive modification or amplification are E, F, Systems of Measurement; D, E, Multiplication; and D, E, F, G, Division. We have purchased new programs and hope that these will fill our needs. Those weak areas that remain uncovered will have to be developed by the staff.

The English Language Curriculum

Since the majority of students entering PICA were two to five years retarded in reading ability, the major emphasis of the language program was on improving reading skills. The core of the curriculum is a compilation of SRA (Science Research Associates) reading labs ranging from the first to the twelfth grade in difficulty. One component of this lab emphasizes speed and accuracy, while the other emphasizes comprehension and word study skills. To insure accurate timing on the speed selections, special electromechanical equipment was designed and constructed. Once activated for study, the equipment operated for only three minutes. During this time, the student pushed a button corresponding to his response to a multiple-choice question. The student cannot proceed to the next question until he has answered the current one correctly. Since each error signals the deduction of a portion of his pay for the assignment, random button-pushing occurs infrequently.

The comprehension and word study skills component of the reading lab has been modified to require the student to construct a response of at least one sentence in length in addition to the multiple-choice and single-word answers required by the publisher. This extra requirement accustoms the student to the idea of constructing his own sentences and leads through a series of increasingly complex requirements to work in the SRA Reading for Understanding is used to help develop the students' ability to follow the logical development of a paragraph.

For students below the sixth grade level, the Specific Skill Series, published by Barnell Loft, Ltd., provides instruction and practice in areas such as following directions, getting the meaning of a word from its context, and locating specific information in answer to a question.

A newly installed vocabulary program, Word Clues (Educational Development Laboratories, Inc.) has been modified and incorporated into the curriculum. As received from the manufacturer, this was strictly a word meaning program. The PICA staff used Bell and Howell Language Master cards to record the pronunciation of each word and added the requirement that the student learn to pronounce and spell each word in a lesson before proceeding to work through the exercise book. In addition to the manufacturer's tests after each lesson, the staff developed retention tests which occur at five-unit intervals throughout the program. Although not all seven books in the series have been developed, they should be complete by the start of PICA Year 3.

Students who enter PICA with good reading skills are assigned to programs in literature analysis (Steps to Better Reading and Steps to Reading Literature, Harcourt, Brace & World), semantics (Words, SRA), grammar (2200, Harcourt, Brace & World; Individualized English, Follett), and composition (SRA). Extensive work was done to develop tests and criterion items for all of the above except the composition lab, which was used with minor modifications.

Programs received late in the year and tried with selected students include the SRA Listening Skills Laboratory and the SRA Pilot Library. These programs will be modified to meet procedural requirements and used in next year's program. The SRA Spelling Laboratory, used during the early months of this year, proved ineffective with our students and was withdrawn from the curriculum.

The major area needing development in Year 3 is undoubtedly grammar, usage, and mechanics. Although short "single-concept" programs covering specific areas are installed in the cuuriculum, they do not adequately train students in these skills and frequent shifting from one format to another causes the student to experience more confusion than learning. During Year 3, program writing staff will be used to expand and unify these materials as there is no effective comprehensive program available at this time. New materials will be written as required. The second developmental priority is to establish an audio-based program for use with students reading at the lower levels of achievement (under 3 grade levels). This should provide for automated or semi-automated tape recording of student reading and staff monitoring of each student, correcting errors and giving explanations where necessary.

PICA INTERPERSONAL SKILLS CLASSES

This series of interpersonal skills classes dealt with the development of behavior useful to the students in school and at home. The classes were also designed to provide information about how students learn in formal laboratory and classroom programs. Further, they were intended as vehicles for shaping behaviors students require to compete in normal school situations, behaviors that could not be managed in individual learning programs. Finally, they were to include subject matter information about academic and social skills useful to the student in his home and school life. Four such classes were developed, each having a combination of the above goals. These classes were:

1. Behavioral Issues. This was a basic course in the analysis of behavior. It was designed expressly for students with minimal academic skills and, as such, underwent detailed analysis to insure revisions and extensions could be made for subsequent years' programs. No modification of social behavior was undertaken in this class, but observations were made of obvious student behavior problems. The class was conducted as a laboratory, starting at the beginning of the 3rd Class Activity Level, and ran for 18 class sessions through the end of the 2nd Class Activity Level.

2. Design Science. This was a basic course in environmental design, developed expressly for students with minimal academic skills. Like the Behavioral Issues class, no direct behavior modification was undertaken here and it ran for the same term.

3. The Contemporary Classroom. In this class, the principal objective was the shaping, maintenance, or application of in-class behaviors compatible with traditional school situations. The subject matter of the class varied from traditional topics through some of contemporary social interest, each topic selected to enhance the exposition and development of components of the range of classroom skills found in the schools. This class also underwent detailed analysis to insure revisions and extensions could be made for subsequent years' programs. Direct behavior modification and maintenance was imbedded in the class, using special observation and contingency management apparatus. The class began at the onset of the 2nd Class Activity Level and continued for 18 class sessions until the end of the school year.

4. Interpersonal Issues. This class was designed as an extension of the topics and skills learned in Behavioral Issues. Here, application of these techniques was made in the home and special skills were developed for the analysis, definition, and management of interpersonal dealings with the students' families. This was the most experimental course of the four conducted during Year 2, and its results will be applied in a full year class during Year 3. There were no direct behavior modification components in this class. It began at the start of the 1st Class Activity Level and continued for 9 class sessions until the end of the year.

Each of these classes was imbedded in the Class Activity Level structure and all were designed to provide components of a hierarchical series of skills thought to be important for each student's development. One group of minor classes not mentioned above provided incentive for students to successfully work through the major classes. These minor classes were available to students who had passed on to the 1st Class Activity Level, and each student was permitted to select one from a list of offerings to take for the remainder of the school year. The list included classes such as basic guitar, life drawing, audiovisual technology, photography, typewriting, basic electronics, model-making, teaching assistant, and behavior technology. No more than three students could enroll for any one of these courses. As their principal use was as reinforcement for earlier behavior, no formal report will be given of them here. It must only be noted that the students were more than enthusiastic about participating in these classes and withholding them from participating in the classes was an effective aversive consequence.

A brief description of each of the four major classes follows, including general objectives, methods, and results.

Behavioral Issues Class

This course was designed to introduce PICA students to a systematic approach for the understanding of behavior. The experimental operant approach was selected as the methodology where the following goals could be accomplished:

1. to demonstrate through simple lab exercises some basic principles that control behavior; and

2. to provide an opportunity for PICA students to examine samples of human behavior in terms of specific behavioral principles.

Course Procedures

This course was conducted entirely as a laboratory. Eighteen lab sessions were scheduled during the 3rd and 2nd student activity levels, as described in the PICA Student Activity Schedule. The sessions during the 3rd Class Activity Level were approximately one hour and 25 minutes long, and one hour and 10 minutes long during the 2nd Class Activity Level. Each student was scheduled for one lab session per week.

During the first lab session, each student was assigned a research animal (a rat) and given instructions about the operation of the laboratory apparatus. The lab rats were male, albino, and approximately 100 days old at the start of the course. The apparatus was a standard operant conditioning plexiglass chamber, containing a lever, stimulus light, food magazine, pellet dispenser, cumulative recorder, and associated manually operated switches. Each student was familiarized with the operation of the equipment and handling the rat.

During later lab sessions, the students worked on a series of eight lab exercises. Each exercise was designed to be a complete instructional unit, including an introduction, method and procedures, data analysis, and question sections. The introduction sections discussed the purpose of the exercise, the behavioral principle under study, and what to expect in the way of results. The method and procedure sections presented a detailed description of the experimental variables(s) to be manipulated, the observation and data collection procedures, and details on what, when, and how to manipulate the control switches. The data analysis section required the students to summarize and present in graphic or tabular form the results of the experiment. Finally, the students were required to answer a series of interpretive and/or application questions pertaining to the completed experiment.

All students performed these lab exercises on an individual basis. However, the instructor was always available to provide any needed assistance and to answer questions. The students were required to perform each lab exercise to the satisfaction of the instructor before receiving credit for the exercise and proceeding to the next exercise. A description of the eight lab exercises is provided below.

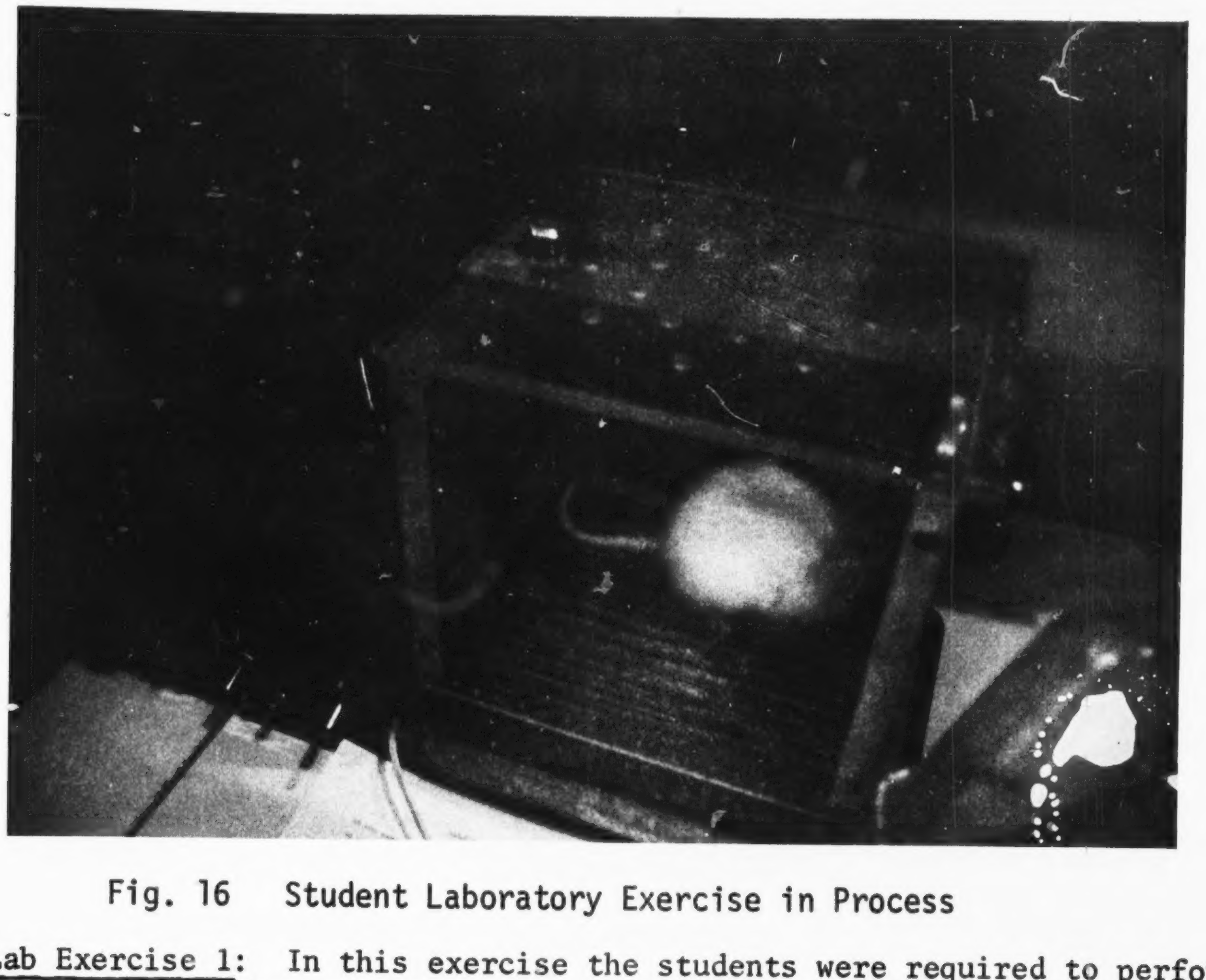


Fig. 16 Student Laboratory Exercise in Process

Lab Exercise 1: In this exercise the students were required to perform simple behavioral observations, record operant level lever pressing and do magazine training (getting the rat to eat food from the dispensing magazine). For the behavioral observations the student was asked to observe his rat for five minutes, and make notes on the rat's behavior, minute-by-minute. This phase of the exercise was designed to give the student practice describing what he observes rather than providing an interpretation of the events. For example, a student was not given credit for saying "the rat is looking for food in the magazine," but it was acceptable to note that "the rat put his head in the food magazine." During operant level recording, a specific behavior (lever-press response) was defined, and the student asked to record its frequency of occurrence prior to any conditioning. In the last phase, the student was asked to train the rat to approach the food magazine at the sound of the pellet dispenser.

Lab Exercise 2: This exercise was designed to illustrate the principle of operant conditioning and extinction. The student first shaped the rat to emit level-press responses. The students shaped the lever-press response by manually reinforcing successively closer approximations to the lever-press response. After the response was shaped and fully established on continuous reinforcement (each response resulting in reinforcement), operant extinction procedures were started. Thus, in this experiment the student observed the strengthening of a behavior when the consequences are removed. Finally, the students were asked to provide examples of human behavior where the principles of operant conditioning and extinction apply.

Lab Exercise 3: In this experiment the students were asked to recondition the lever-press response, and compare the rate of original conditioning with reconditioning. In addition, since this exercise began with extinction and the previous exercise ended with extinction, the student had a chance to observe whether there was any recovery in response strength between the two exercises.

Lab Exercise 4: Two schedules of reinforcement (other than continuous reinforcement) were introduced during this exercise. These were the intermittent schedules termed fixed-interval (reinforcement after a specified period of time) and fixed-ratio (reinforcement after a specified number of responses). The students were asked to make several response rate comparisons: a) intermittent vs. continuous reinforcement; b) fixed-interval vs. fixed-ratio; and c) extinction response rates following continuous vs. intermittent reinforcement.

Examples of the operation of intermittent reinforcement on human behavior were required.

Lab Exercises 5 and 6: Both of these experiments dealt with procedures for establishing discrimination performance. These experiments were designed to illustrate how, through the use of differential (or selective) reinforcement, certain environmental stimuli can come to control the emission of behavior while other stimuli do not (or do, but to a lesser degree). Using the principle of differential reinforcement, the students were asked to explain how certain aspects of their own, and other human behavior, come to be emitted under selected stimulus conditions.

Lab Exercise 7: In this experiment, one method of demonstrating conditioned (or secondary) reinforcement was studied. The students observed how a specific stimulus (sound of pellet dispenser) that had been consistently associated with the delivery of food could maintain the conditioned response in the absence of food reinforcement. The students were asked to extend the concept of conditioned reinforcers to human social, work, and academic situations.

Lab Exercise 8: This experiment introduced the technique of response chaining, providing a different test of the effectiveness of conditioned reinforcers from that demonstrated in Exercise 7. Here, the students were asked to use conditioned reinforcers to establish new responses. The procedures of this experiment required the students to establish a response chain (a series of responses) consisting of three topographically different responses, each later response in the chain acting as a conditioned reinforcer for the previous response. And, finally, the students were asked to analyze examples of human behavior in terms of response chaining.

Results and Discussion

All twelve students completed at least five lab exercises. However, only two students were able to complete the entire series of eight planned exercises. The failure of all students to complete all exercises can be attributed to one or a combination of three factors. One factor was the class schedule, i.e., one session per week ranging from approximately 70 to 85 minutes in duration. In many cases, this amount of time did not permit the average student to complete some exercises in their entirety. The student frequently could complete all the data collection for the exercises but did not have enough time to finish data analysis and answer the questions in one lab session. Therefore, the first part of the following lab session had to be devoted to completing the exercise started in the previous session.

A second factor is the fact that certain lab exercises required several lab sessions to complete. This was especially true in lab exercises on discrimination training. Those experiments required the student to continue training until the performance of the rat reached a specified criterion of discrimination performance. It was rare that a student was able to reach a criterion in less than three lab sessions.

And, finally, there were noticeable differences in the students' execution of the procedures. Some students experienced little difficulty in bringing the animals' behavior under the control of the specified contingencies, while other students were delayed due to other difficulties. Although the exercises were simple with detailed written and verbal descriptions of procedures, some students required frequent monitoring and assistance before they were able to carry out the procedures.

Despite these difficulties, this course in behavior science had several beneficial results. The lab exercises appear to have been effective tools for demonstrating functional relationships between environmental events and the behavior of organisms. However, and more important, the students were able to draw parallels between the operation of behavioral principles in the lab exercises and samples of human behavior. The students were readily able to point to the similarities between the academic contingencies that they were exposed to and the contingencies manipulated in lab exercises. Thus, the experience gained from this course suggested it as a useful course for further development, extension, and relation with other courses.

Design Science Class

The Design Science class was developed as an introduction to environmental design procedures. Here, students were required to solve verbal, visual, and physical problems from their own environment (or from actual historical episodes) that approximated problem-solving tasks normally presented in later school years. As this subject matter is not normally presented to students of this age and skill level, the class was conducted with stated objectives, but in-class observations and attainment of criteria for problems were the determinants of class progress rather than the pre-determined schedule. The proposed schedule for the class was designed to include major training components thought to be required for the student to bring environmental design skills to bear on problems within his own environment.

Course Procedures. The course was conducted for one-half of its term as a laboratory and for the remainder as a classroom program where work done outside class could be examined, discussed, and revised. Eighteen sessions of this class were scheduled during the 3rd and 2nd Class Activity Levels. Class sessions averaged approximately 1 hour and 20 minutes. Each student was scheduled for one class session per week, but two classes of six students each were held by the instructor because of the initial shortage of laboratory space.

As this class (and the Behavior Science class) was the first large-group student program in PICA, special attention was paid to the observation and recording of student in-class behaviors. These records could then be used as a baseline against which to assess the baseline and other behavioral records of later classes (such as The Contemporary Classroom) where direct manipulation of in-class behavior was to be attempted. No behavior modification objectives or procedures were planned for this class.

The following outline describes the overall general topics, specific topics, instructional media, and assessment techniques planned for Design Science.

General Topic	Week #	Specific Topic	Instructional Media	Assessment Technique
LOGIC	1	Pre-Test and Verbal Logic	Test, Discussion, and Verbal/Written Games	Work Sheets Test Form
	2	Visual Logic	Audiovisual Presentation and Discussion/Board Work	Work Sheets Test Form
	3	Physical Logic	Model Building and Discussion/Table Work	Model Constr. Work Sheets
MEASUREMENT	4	Linear and Square Measure	Discussion and In-Class Work	Work Sheets Test Form
	5	Angular Measure	Audiovisual Presentation and Class Work	Work Sheets Test Form
	6	Scale Measure	Discussion and In-Class Work	Work Sheets Test Form

(Continued on next page)

General Topic	Week #	Specific Topic	Instructional Media	Assessment Technique
RE-DESIGN STUDY	7	Define Personal Design Problem	In-Class and Home Drawings and/or Photographs	Work Sheets
	8	Re-Define and Re-Structure	In-Class Work	Work Sheets
	9	Design Critique	In-Class Discussions and Presentations	Critique
END OF LEVEL 3 ACTIVITIES				
VISUAL DESIGN STUDY	10	Color and Media	In-Class Presentations and Discussion/Table Work	Work Sheet Test Form
	11	Composition	Audiovisual Presentation and In-Class Work on Selected Topic	Work Sheet Layouts
	12	Composition and Display	In-Class Work and Public Display	Display
ECOLOGY AND PLANNING	13	Setting the "Disaster" Scene	Audiovisual Presentation and Class Discussion	Work Sheets Test Form
	14	Ecology I	Class Discussion (Possible Audiovisual)	Work Sheets Test Form
	15	Ecology II	Audiovisual Presentation and Class Discussion	Work Sheets Test Form
SOLVING A DISASTER PROBLEM	16	Presenting the Problem	Class Discussion and Problem Selection	Work Sheets
	17	Disaster Workshop	Small-Group Workshops and Discussions	Work Sheets
	18	Disaster Critique	Completion of Solutions and Class Presentations	Presentation

A course pre-test was administered to the twelve students during the 1st Class session, revealing a mean score of approximately 50% on twelve design problem areas. This score on such elemental material forced an immediate change in planned course activities. Over one-half of the students had demonstrated that they could not perform basic linear, square, and angular measurement in the course pre-test. Also, well over half of the students could not associate basic visual design constructions with verbal counterparts and few were able to visualize and construct three-dimensional objects.

Additional materials were gathered and more basic instructional sequences planned to insure most students would meet the criteria for earlier course sections. Plans were made with the Mathematics Curriculum Coordinator to increase (wherever possible) the students' work in math components concerning basic geometry and systems of measurement. The revised course plan eliminated all but the basic components of the "Visual Design Study" section of the program to accommodate the extension of earlier components.

The first general topic, Logic, was covered in four class sessions instead of the originally planned three. Approximately 45 minutes more than was originally planned was spent on both the Visual and Physical Design sections. The additional materials and instruction (including step-by-step worksheets) appeared to bridge the gaps of information for these students and all students completed their assigned Verbal, Visual, and Physical design constructions in class at 90% or better criterion scores.

The Measurement topics proceeded more slowly. In fact, following the first Linear and Square Measure class, the decision was made to eliminate the Angular Measure topic: not more than three students were even familiar with the concept. The Linear and Square Measure section lasted for two class sessions, with all students eventually meeting the 90% or better criteria for Linear Measurement, but only five students attaining the same standards for Square Measurement (which required multiplication skills--two digit numbers times two diget numbers--beyond those known to three students). Scale Measure again proceeded through two class sessions with eight students matching the 90% or better criteria on test forms.

In the Re-Design study topic, students were required to select from their own environment (at home or in school) an evident problem that could be analyzed (and hopefully solved) by design techniques. Two class sessions were spent defining and selecting such problem areas. Then, students were required to submit rough scale drawings of this environmental problem which was handled as homework. This entailed training the students to use a small portable drafting machine. Measurement and Scale drawing with this equipment again presented problems for three students, even following an average of one and one-half hours of supplementary instruction. Students chose problems ranging from the arrangement of furniture in their bedroom, through family living arrangements on two floors of the house (including scheduling of the woodshop of a junior high school). These problems and representative drawings were submitted and discussed in the next class period. The last three meetings in this topic area were devoted to the redefinition, discussion, and development of final working plans to solve the problem. In fact, only four student problems were "solved" by the end of these class sessions, but all students except one had become proficient (and in most cases very skilled) at linear, square, and scale measurement. During the course of this topic, the class meetings moved from the laboratory to the classroom. Also, so little disruptive behavior had been demonstrated (one incident from each of two students), that records were no longer kept of their occurrence.

The Visual Design Study topic was reduced to only one class session. Here, a film on color and media was presented, discussion centered around the uses to which color could be put in visual representations, and a test on color theory and uses administered. This topic did not relate to any of the material that followed and, as its principal objective had been discarded in favor of additional measurement studies, it served no immediately obvious purpose.

The remaining three class sessions were spent in the topic Ecology and Planning. Here, students were required to apply their analysis and design skills to the solution of a problem involving a large-scale natural disaster (in this case, a hurricane). The concepts of ecology and the interdependance of man-made requirements for survival were presented, discussed, and related to the previous local "problems" of the students. A documentary film was then shown that described the breakdown of man's designed ecology under the effects of a hurricane. The following discussions highlighted man's biological needs and the strategies that can be used in preventing general breakdown in a disaster and quickly reestablishing a living environment following such an occurrence. Paper and pencil tests terminated this topic area, all students scoring 90% or better.

Results and Discussion

A major outcome of this class was the obvious indication that a teacher cannot presume each student enrolled in the class had mastery of the basic skills required for the material to be learned. Further, when pre-program assessment tests are administered, revisions to planned materials may well be required and these revisions must be accomplished if the class is to proceed with any hope of success for most of its members. It is also possible that only large doses of remedial work will be sufficient to overcome deficiencies in content and behavioral skills. This indicates strongly that wherever possible individualized programs of instruction should be devised, particularly where entering skills vary greatly. Barring such development, and with a greater number of students, differing group programs must be devised on varying skill levels, with parallel emphasis placed on individualized instruction to remedy deficiencies of those students who show them.

Although absences from PICA compromised achievement of certain skills for certain students, objectives specified for most topics were met or exceeded. Like the Behavioral Issues class, the time scheduled for class sessions often did not permit completion of assigned work. Although it may be reasonable to assume that more time in each session or more total sessions would have increased the likelihood of all students completing all objectives, other considerations preclude such planning for the future.

All students, except one, expressed great interest in the topics and materials covered in this course. Also, each student showed evidence of learning most of the material presented in the course. Further, most students used the learned skills (many after the class had terminated) in solving major or minor problems they faced at home or in school. Such positive indications notwithstanding, these newly learned behaviors were determined to be of lesser overall importance to the students' academic and social development than those approximated in all of the other classes. Therefore, such a course will be developed further and conducted in future years only if major breakthroughs are made in the efficiency and effectiveness of these other courses.

The Contemporary Classroom

Unlike other research subjects, people, even those with a minimal vocabulary, can follow verbal instructions when both the instructional cues and the consequences are clearly defined. This premise shaped many of the objectives and procedures described below.

One of the main objectives of this eighteen-week course was that the students learn to differentiate their teacher-controlled classroom behaviors from those behaviors required in the gym or in the pool hall. From the data gathered in Year 1, it was clear that the school teachers felt the students had not exhibited much change in their classroom behaviors throughout the Project term. It was also clear that although the students were able to follow and complete programmed instructional material, they were, in some instances, unable to match those highly achieved subject matter skills in a general classroom setting.

In brief, some students were unable to follow verbal instruction in class, take proper notes, turn in homework, do well on a variety of tests, and in general did not have appropriate in-class behaviors.

For purposes of this course, in-class behavior was viewed as comprised of two separate components:

Deportment--those social and interpersonal behaviors between students, and between students and teachers, under the constant observation of teachers.

Study Skills--those behaviors needed for note-taking during a lecture; attention to and interaction with audiovisual media; blackboard work; discussions; text book reading; verbal responses required for a French class, English literature class, etc; and those visual recognition and memorization skills needed for geography, biology, history, chemistry, and mathematics classes.

To insure student success in both deportment and study skills for ongoing in-class behavior, the eighteen-week, Contemporary Classroom course was designed. The following explanatory material is taken from the orientation readings given out to the students during the first class session.

The purpose of this class is to make you more effective in your school classrooms by teaching you some skills which are important and useful in your everyday school work. You have already been introduced to the training (or shaping) of animal behavior in the Behavioral Issues lab. You also have been introduced to some of the ways one approaches problem-solving in the Design Science class. You are now ready to combine these newly learned skills in shaping your own classroom behavior so that your ability to retain information, participate in classroom discussions and study for and pass difficult class exams will make your school classroom time more enjoyable. Not one of us likes to do poorly in front of a group of our friends. This course will help make you a successful performer. In short, your active participation in class should increase the following necessary schoolroom and home study behaviors:

- Note taking
    - A. Lecture
    - B. Blackboard
    - C. Film
    - D. Test
    - E. Discussion
- Assignment Reading
    - A. Fiction
    - B. Non-fiction
    - C. Technical
    - D. Historical
- Report Writing
    - A. Humanities & Social Science
    - B. Technical
- Class Discussion
- Answering Questions
- Asking Questions
- Maintaining Attention Span in Difficult or Monotonous Material
- Recitation of Material
- Test Taking
    - A. Multiple Choice
    - B. Fill in Blanks
    - C. Matching
    - D. Essay Questions

- Remembering Important Lecture Points
- Reviewing Techniques in a Test or Report
- Self Discipline Home Study
- Procedures for Positive Classroom Group Behavior
- Self Control of Behaviors in Class

Procedures

The students met in a room with blackboards, a teacher's desk in front, and twelve schoolroom chair-desk combinations. The course met for sixteen out of the available eighteen sessions. The sessions were approximately one hour and 10 minutes long and followed a curriculum guide given to the students at the first session.

Since one of the purposes of the course was to facilitate appropriate in-class study skills, concentration was not made on one particular subject area, but was varied to give a greater opportunity for learning the teaching methods and procedures for the different course contents.

The teaching techniques that were used, approximated those presently in use in the public school system by the traditional classroom teacher: reading from a text, group recitation, rigid lecture, films, slides and discussion, blackboard work, lab work, reference books and their various combinations. The class content was classified under the traditional categories, such as English, Biology, Chemistry, Physics, History, Geography, Mathematics, French, and a new category called the Contemporary Scene (which included sex and drugs).

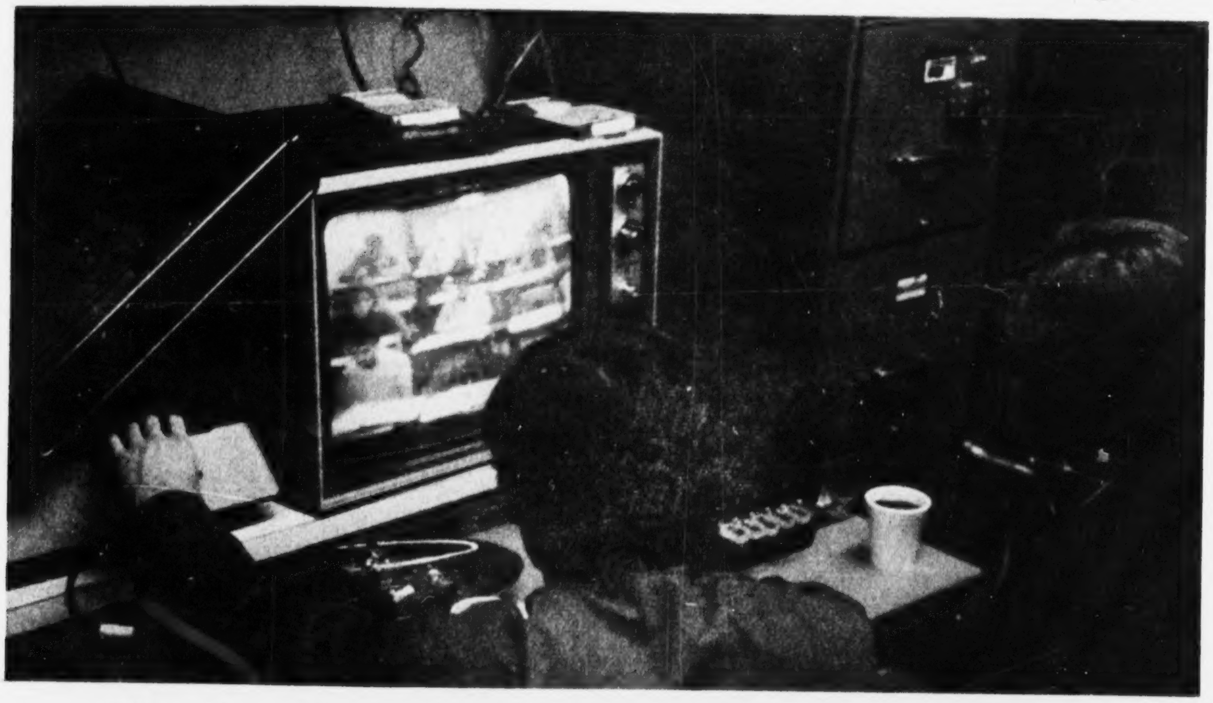


Fig. 17 Staff Observing, Monitoring, and Consequating Student In-Class Behavior

The following is a list of the individual classes with a brief description of material covered and method used. Each class had a test designed to cover the material taught as well as to give repeated testing experiences to the students.

No.	Session Title	Brief Description	Media Used	Form of Test
1	Orientation	Description of Purpose-behavior objectives, payoffs, fines and general procedures	Lecture, mimeo handouts, overhead projection	A combination of multiple choice and true and false
2	The English Class-Part A	The short story-character study-use of symbols and outlining	Text-read aloud, individual reading in class	Multiple choice-fill in the blank & bonus question of fill out a sentence
3	The English Class-Part B	MacBeth-Act I-the tragedy, the play format	Hand out selected material, lecture-film lecture	Multiple choice-matching three short sentences to topical questions
4	The Science Class-Part A-Biology	Insect life-classification. Recognition of parts and species	Textual hand out, lecture actual species, and films	Fill in the blank-matching
5	The Science Class-Part B-Biology	Further classification and identifying of species-definition of terms	Textual hand out, blackboard, lecture, and films	Fill in the blank-matching
6	The Science Class-Part A-Chemistry/Physics	The chemical elements-the periodic chart, their symbols, atomic numbers, and weights	Textbook and lab manual, lecture	Open book test
7	The Science Class-Part B-Chemistry/Physics	History of astronomy from the Greeks to the present day	Text, lecture, film	Fill in the blanks
8	The Social Studies Class-Part A-History	History of Thailand, Khumer Period to Present	Slides, lecture & map worksheets	Multiple choice and map constructions

No.	Session Title	Brief Description	Media Used	Form of Test
9	The Social Studies Class-Part B-History	The French Revolution 1789-1799-its causes and the Reign of Terror	Hand out summary, and lecture	Fill in the blank, true or false, definition of terms, one essay question
10	The Social Studies Class-Geography	Map reading-latitude and longitude-history of cartography	films, lecture, maps	Use maps to locate principal geographic points, fill in the blank
11	The Social Studies Class-Part D-Government	Population Explosion-from Malthus to Fuller	Film, lecture, and film guide material given out	Fill in the blank, essay
12	The Math Class-Part A	Prime factorization	All blackboard and lecture	Work from blackboard
13	The Math Class-Part B	Geometry by paper folding	All lab demonstration and lab work	Lab manual, procedural test
14	The Language Class	French-numbers, days of week, and useful phrases	Oral presentation	Translate from French to English
15	The Contemporary Scene-Part A-Sex	Teenagers, dating, and sexual behavior	film	Multiple choice, identification, essay
16	The Contemporary Scene-Part B-Drugs	LSD and other halucinogens	film, lecture	Class response to questions
17	The Contemporary Scene-Part C-The Age of Speed	not given	--	--
18	Making it in the Classroom-the Big Picture	not given	--	--

During these class sessions, it was suggested to the students that they conduct themselves as much like "the best students" they knew, within their capability. They were instructed to remain in their seats, take notes on lectures and other presentations, answer direct questions from the teacher, ask questions when they were unclear about material, remain awake and attentive to the presentations, complete assigned work, and refrain from disruptive in-class behavior. Such disruptive behavior was defined in writing for the students and included talking which was not addressed to the teacher, moving from chair, disturbing another student, sleeping (appearance of), chewing gum, smoking, heckling another student, failure to bring pencil or other class materials, vulgar or unseemly gestures, not answering a direct question, and other behaviors not in keeping with perfect classrom decorum.

Where the subject matter information was delivered in traditional ways, the management of student in-class behavior was designed to be under the control of outside observers and visible in-class instrumentation. Observation of the classroom was maintained through two closed-circuit television systems. One system included a remote controlled pan and tilt camera mount, power zoom lens, camera, and monitor. The other was composed only of a static mounted camera (with wide-angle lens) and monitor. These two systems could be switched to record on a video recorder, depending on the views desired. The remote system was capable of long-range narrow-angle viewing of the entire room or extreme close-up observation of in-class activities. The CCTV systems were controlled from an observation room adjacent to the classroom.

The observation room also included space for up to five staff observers, although only two were used for formalized observation and behavioral recording. These two staff controlled the CCTV equipment and acted as behavior modifiers.

The classroom also contained an instrumentation array used to display and record bonus points for appropriate behavior and point fines for inappropriate behavior, as defined by the teacher and stated instructions, and as applied by the observers. There were four components in this array:

1. A single "bonus counter" which displayed points earned by students during the class. The total on this counter was applied as a bonus for each student at the end of the class. The counter was controlled by a "time-base" pulse supplied by an electronic counter at the rate of two pulses per second. The rate cumulated to 7,200 points per hour. Points were converted to cash bonuses at the rate of 100:1, 7,200 points = 72¢).

2. A panel that displayed 12 round lucite panels, each carrying a student's PICA code number. When a student displayed inappropriate behavior, the observer pressed a key in the observation room that routed the time-base pulse to a light behind the code number. This panel was in full view of students at all times.

3. A series of "fine counters" placed behind the display console out of the students' sight. These counters cumulated each student's fines for inappropriate behavior at the rate of 1:1 (i.e., 72 points = 72¢). When cumulating a fine, the counter emitted an audible "click."

4. A remote warning circuit controlled by the teacher via a modified TV channel changing device. This was to be used to warn the students that the teacher was about to turn off the master bonus counter, thereby deferring bonuses for all students.

Provisions were made for revising this system from one where consequences were obvious to all students to one where only the punished student was aware of the fact.

Such control was clear to all students. In the vernacular of one of the staff observers, "Observing these classes is like watching grass grow." Few instances of grossly inappropriate behaviors were observed in this class; so few that no long-term behavior modification studies will be described here. Consequently, general descriptions of inappropriate behaviors were discarded and baseline studies were made of less vigorous, but possibly inappropriate, student behaviors. The most disruptive behaviors found in some strength were yawning, pencil-tapping, eyes averted from the teacher's face, and some other relatively inoffensive actions (such as biting fingernails). Behavior modification with the instrumentation available was managed with these behaviors. However, these behaviors were attenuated with minimal application of the aversive consequences. One exception to this will be reported in later publications.

General Results--Deportment

The students were rarely disruptive--the only case of continued disruptive behavior came under control through contingent fines. At first, the students were conscious of the lights flicking for any minor disruptive behavior, but shortly this disappeared. The staff had very little cause to remove points. The students were "models" of proper in-class behavior--they raised their hands before speaking, were attentive to the teacher, but did not exhibit sleeping behavior, curse, interrupt, move about the room, talk to others, chew gum, or generally disrupt the class. From a research point of view, these results provide little informative data about controlling classroom behavior. Conversely, such results demonstrate the potential effectiveness of clearly managed classroom procedures.

General Results--Study Skills

The students were able to retain material covered in class despite their varying skill levels. Although a variety of instructional techniques were used, the students demonstrated, by their test scores and their ability to take notes and recall detailed information, that they can function well in a demanding classroom. One major area of study skills not effectively learned during this period of time was constructing detailed essay answers for students with poor reading skills. These students demonstrated skill in supplying matching and multiple choice test answers, but the essay-type questions remain a handicap for some of these poor readers. Full test scores, points earned, fines applied, and achievement will be given in a later supplementary report on academic and interpersonal skills programs.

Interpersonal Issues

The Interpersonal Issues class during Year 2 was primarily a developmental and pilot effort. Two major and specific objectives have most concerned the principal investigators:

1. the development of a behavioral history-taking procedure for student use; and

2. the initiation of a classroom program whose basic objectives are to be expanded into a course of at least twenty-six sessions in Year 3.

To change one's own behavior or the behavior of others, it is necessary to recognize the complex nature of the specific behavior (plus its antecedents and consequences) and to specify and use those factors that act to maintain such behavior. The factors acting to maintain behavior of these socially deviant adolescents most probably exist in complex series. In developing a means of taking a behavioral history, interests center in areas of community, family, school, peer group, and self-behavior systems. Hopefully, a thorough specification of these systems will clarify the complex series of reinforcers used by the socially deviant group. In addition, it is hoped that such a history will point to potentially useful reinforcing schemes for directing new behaviors.

During Year 2, the Interpersonal Issues class focused its service efforts on making more readily available to the students:

1. awareness of their own values and objectives so that they could become more alert to which reinforcers "work" on their own behavior;

2. increased awareness of how they perceive their parents' values and objectives and what reinforces their parents' behavior, and through this awareness, determining how their family lives are influenced;

3. the nature of a behavioral problem; and

4. the nature of behavioral discrepancies. A behavioral discrepancy in this instance is defined as "the distance between a behavioral problem and its solution." The distance may be influenced by inappropriate decision making, incompetence, magical thinking, inappropriate construction of pre-behavior stimuli, or ineffective or inappropriate use of "reinforcing agents."

Some direct in-class procedures were used to communicate those experiences which may have influenced parental attitude systems. Again, the purpose of these approaches was to increase ability of the students to understand and change their own behavior and the behavior of others.

1. Films of the "Thirties" (1930-1940, the American Society) were shown, the late thirties being the time when most parents of the current student body were in their own adolescence.

2. A detailed series of questions was developed which the student used to interview his parents, first mother, then father. These questions covered family background, school experience, work experience, decision-making processes, "what pleases you," "what do I do (and don't do) that pleases (angers) you," the general values and objectives of the parent.

3. A family interview was to be conducted informally during the dinner hour, using a tape recorder and a list of suggested questions for the student to ask. These questions attempted to help the student secure statements of each family member's values and objectives and to determine the interactional schemes used in the family.

A series of verbally stated behaviorally-based "attitudes" was devised and used to determine and record attitude awareness and change, if any, before and after the interview and teaching intervention. The student was asked to answer these questions 1) for himself, 2) as he perceived his mother would answer the questions, and 3) as he perceived his father would answer the items. If there was a missing parent in any of the families, a staff member was substituted as the interviewee.

The parents were each given these attitude lists and asked to rate the items for himself and then as he believed his or her child would answer the items.

At the end of the teaching sessions, the attitude scale was administered again, as in the original procedure. The data will be analyzed and the information will be used in organizing specific classroom procedures for next year.

During Year 3, all current efforts will be expanded. In addition, each student will have an opportunity to change his own behavior and to attempt to change the behavior of family members and friends. It is planned that the Behavioral Issues and Interpersonal Issues class will be joined into one cohesive class program. In each component of the Behavioral Issues sequence, pertinent components of the Interpersonal Issues sequence will be conducted. For example, following the behavioral component--where students deal with shaping and continuous reinforcement--they will be assigned an outside problem where extensions of the laboratory strategy must be practiced with their family and friends in real-life settings. In the Year 2 program, when such relations were made, they were widely separated in time and their effects could not be put to full use, since the students had not recently practiced the skills in the laboratory.

Responsibility for the conduct of this new class, and the development of formalized course procedures and materials will be shared by the operant and therapy-trained principal staff members.

SCHOOL LIAISON PROGRAM

In PICA, two separate objectives were subsumed in the School Liaison Program:

1. the continued development of relationships with school personnel that would enhance the transfer of information about and planning for the future involvement of PICA students in regular school programs; and

2. the creation and conduct of research programs regarding student in-school behavior.

These corresponded to the service and research objectives of PICA Year 2.

School liaison for Year 2 began during the first week of classes for each associated school jurisdiction, two weeks before students began their activities in PICA. Each counselor and teacher with whom PICA students would have contact was invited to a series of open house presentations in PICA. Such arrangements had been made through school principals during the summer. Data from PICA Year 1 was reviewed and these visitors were paid as consultants for attendance and participation in the meetings. Their advice and assistance in last-minute program modification was requested and acted upon. Thereafter, a series of meetings was held in each school. A general description of PICA was given to the total staff to insure the overall objectives and programs would be less likely diluted or circumvented by outside agents and to insure that if a student's schedule was changed his new teacher would be informed of the basic program goals and procedures.

Finally, meetings were held in the school with the student's teachers. Here, the Project Coordinator described the methods that were to be used to exchange general information between the principal and PICA about the students. Also a set of procedures was agreed upon for monitoring each student's daily behaviors in the classrooms. Tentative recording forms were devised during the meetings with each school and revised later to accommodate specific proposals from each school. Following the development of these recording forms and the specification of target behaviors, further meetings were held with these teachers to train them in the use of the procedures and materials. Thereafter, frequent contact was maintained with the teachers to insure (insofar as possible) the reliability of recorded data.

General contact was maintained with each school throughout the year for five purposes:

1. to coordinate social counseling and academic advisement;

2. to share general, but important information about the students' progress and problems (e.g., suspensions from school for smoking, release from official probation, relocation of the family home, impending court appearances, hospitalization for narcotics withdrawal, etc.)

3. to assist in shaping parent involvement with the schools (through the parent training program);

4. to develop effective means for Pupil Personnel Workers from the schools to assist both PICA and the schools in maintaining student attendance; and

5. to familiarize the schools with most details of PICA and to demonstrate results that would facilitate introduction of PICA-based programs into the schools at a later time.

Although each of these functions provided useful information about the administration and development of PICA, their basic benefit was in providing services to the student, parent, and school.

The coordination of social counseling and academic advisement between PICA and the schools was readily achieved. Frequent and intimate contacts were established with school counselors from each school except that in the District of Columbia. In this school, little information could be extracted from the counselors and even less advice could be passed on. Not only were these counselors unresponsive (a possible construction would be "apathetic") in this liaison, but a large proportion of school contact time was spent trying to reach the school by phone (through a central switchboard for the school system). In most instances, however, other schools informed PICA about impending program changes, incidents of bizarre behavior outside the classrooms, and plans for future school schedules. Such contact was vital to the daily operations of PICA.

Transmitting information between PICA and the schools about student progress and problems was managed through the principals, vice-principals, counselors, and selected special-assignment teachers (homeroom teachers, drug-abuse counselors, etc.). Again, this interchange of information was frequent and was initiated from both directions, with the D. C. school as the one exception. Often, such contact required PICA to coordinate its activities with social workers, pupil personnel workers assigned to the schools, and probation officers. Valuable contacts were developed and programs conducted through probation officers from both Prince Georges and Montgomery Counties, in Maryland. In two instances, contingency management procedures for student behavior were established between PICA and these officers, one relating to school attendance and home curfew, the other related to reimbursement for stolen articles and relocation of residence to the father's home. Such liaison also required the PICA coordinator to attend and participate in court hearings for PICA students resulting from charges incurred prior to or during their PICA placement.

The parents of PICA students were typified by their inaction in dealing with the schools about problems their children had in school. The only frequent contacts these parents had with the school were in required conferences with principals following suspensions. Few were known to attend PTA meetings or to request conferences with teachers and administrators. None knew from one year to the next what their child's proposed class schedule would be, except where recurring failure in classes required retention in grade and classes. Parents were counseled (in the goal-oriented classes) about the importance of close school liaison, especially following successful performance by their children in school. Contingencies were also arranged to insure that the parents would contact the schools about future programs for their children. Such efforts eventually resulted in 50% of the PICA parents dealing directly with the schools over these issues. The remainder lacked both educational background and incentive for establishing such liaison and were never affected by this program. Some school counselors were not completely in favor of this new interest shown by parents as it demanded more work from them. However, most report, verbally, some satisfaction in the increased interest shown by parents.

Nine of the twelve PICA students from Year 2 were known as serious truancy problems in the schools. Clearly, if the overall attraction of PICA was not sufficient to maintain attendance of students with such histories, alternate attendance-producing methods could be studied. Non-attendance, for reasons other than legitimate illnesses, became a problem with five students, three of whom were from the same school. Because no effective relationship could be established with personnel from the D. C. school, the two non-attendance problems from that school were not dealt with through their pupil personnel worker. However, the three students from Prince Georges County who were frequently absent had a pupil personnel worker willing to assist in studying ways to use his services in reducing absences. This experimental program demonstrated success for the one student with whom it was tried. It will be reported in detail elsewhere.

The Project Coordinator also maintained frequent contact with school administrators throughout the school year by telephone calls and school visits. This contact was designed to inform administrators of changing Project procedures (insofar as such information would not jeopardize the conduct of research components) and the day-to-day results within the program. Further, school administrators, counselors, pupil personnel workers, and parents were given detailed reports of academic performance and behavior through the Project newsletter (weekly) and formal grade reports at the end of the school grade marking periods. (See Addenda for further information.)

Most of the school staff expressed interest in these consistent and detailed reports, but also commented that, as they had never received this quantity of data before, they did not know how to use it effectively. No attempt was made to train them in its use. All favorable and unfavorable data was reported, on the presumption that such reporting would enhance information feedback from the schools. Calls from the schools were frequent, both from counselors and administrators. Each of these contacts stressed the development of innovative and useful procedures for developing academic and social skills, and parallels were drawn from the PICA laboratory setting to hypothetical and actual in-school problems. The goal was to provide the schools with an opportunity to explore and analyze the potential application of such procedures in that setting. Each attempt made by the schools to incorporate new procedures into their system was reinforced by the PICA staff.

A meeting was also held near the end of the school year with all principals, counselors, and pupil personnel workers, as well as major PICA staff. Here, school personnel were informed that during Project Year 3 the PICA staff would be available to assist in developing behavior modification and/or academic training programs of any type in their school. Offers were tendered for program development, large-scale staff training, or seminar programs in any one of several subject areas. Response to this offer was immediate with one school scheduling staff to observe ongoing work at PICA, program development assistance from PICA staff, and possible in-depth training before the start of school in September 1970. Other schools proposed to proceed more gradually, with initial involvement beginning in September 1970. These activities were consistent with the PICA goals of beginning development of in-school programs by Project Year 3.

Daily Data Liaison

In addition to the above-mentioned general liaison with the schools, a more specific program of data-gathering and information flow was conducted throughout Year 2. This program was designed to provide daily information about the student and his in-school activities to both his parents and to PICA. In fact, the program was not completely successful in providing all daily information sought (approximately 50% of such daily and reliable information was gathered during the term of this effort), but it did illuminate certain problems in student/school relations.

The information about the student's school activities was collected by what was termed the "School/PICA Behavior Rating Scale and Homework Form," a fair explanation of its two general functions. As noted earlier, this form and the procedures specified for its use were developed in conjunction with the administrative and teaching staff of the cooperating schools. Following the preliminary meetings with teachers, final forms were designed and special procedures delineated. Meetings were held with parents to explain the form and its use. The reporting procedure did not start until well into the 3rd Class Activity Level. The following letter was sent to all teachers of PICA students five days before the initiation of the procedure. It may serve as a general description of the procedures, as the students and teachers knew them.

DATE: December 3, 1969

TO: Teachers of PICA Students

FROM: James A. Filipczak, Coordinator, PICA Project

As we discussed previously, the SCHOOL/PICA BEHAVIOR RATING SCALE AND HOMEWORK FORM is designed as an integral function of the PICA Project and can assist us all in maintaining some degree of information flow about each PICA student's behavior in school. All PICA students will begin to carry these forms to their classes beginning MONDAY, DECEMBER 8, 1969.

The steps they will follow in handling this form are:

1. They will drop the form on your desk at the start of class.

2. They will come up after class to pick up the form.

   a. You will write in the behavior rating for that day.
   b. They will write in the homework assignment given that day (or the word "none").
   c. You will sign the form to validate the rating and the assignment. Please use ink or ballpoint pen.

3. The students will take the form home (with any homework) and their parents will sign the form indicating that they have read the behavior rating and noted for us whether or not homework has been done at home that evening.

4. The students will bring the form to PICA, with homework.

   a. We will award small bonuses if the form is properly completed.
   b. We will impose fines if the form is not complete or not returned.
   c. We will check completed homework against the stated assignments and indicate on the next day's form if we have received homework.

We all hope that maintaining this form does not impose too much of a burden on you, as we recognize that you have numerous duties beyond monitoring PICA students. It does seem, however, that this may be a relatively simple way of maintaining a daily report on the behaviors of these students.

Thanks for your help up to this point. Reports on the data generated by these forms will become a regular feature of our PICA PARENTS' NEWSLETTER. If you have any questions, please call me at 587-4044.

ATTACHMENTS: Sample Form
Examples of Inappropriate Behavior Types

Teachers indicated often that this reporting procedure was relatively easy to maintain, although the form itself appeared quite formidable. The behavior ratings for these forms were to be developed by matching the student's in-class behavior to a list of "Examples of Inappropriate Behavior Types" devised with the help of the teacher. This list is presented below.

EXAMPLES OF INAPPROPRIATE BEHAVIOR TYPES

PHYSICAL

1. Fighting with or injuring other students
2. Laying hands on teacher
3. Throwing or upsetting objects in room
4. Damaging equipment in room

5. Destroying supplies or materials
6. Not wearing or removing proper clothing
7. Disruptive or vulgar gestures or movements
8. Walking out of room or moving around without permission
9. Exchanging items (books, notes, gum, etc.) with other students
10. Tipping, swinging, or moving chairs from proper location
11. Sitting in horizontal position
12. Feet on furniture
13. Sleeping (or appearance of)

VERBAL

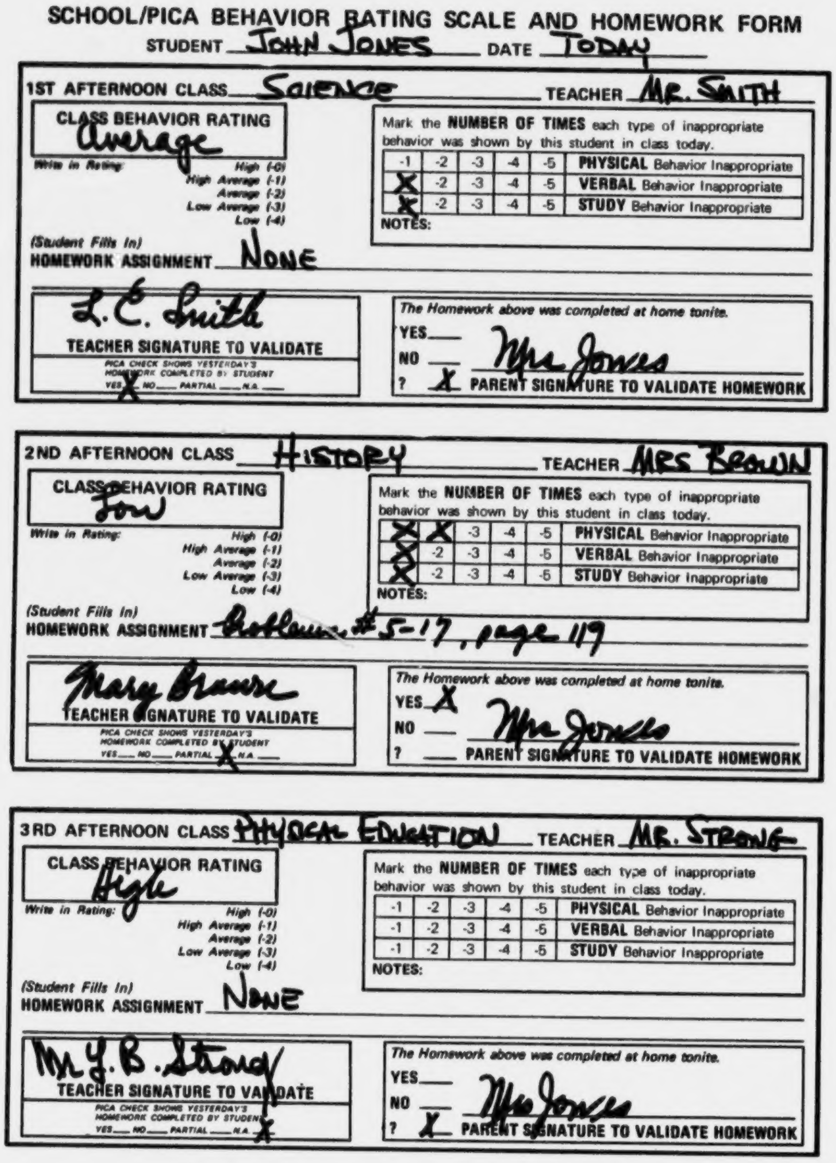
1. Yelling out to other students
2. Catcalls or other disruptive noises
3. Unsupported arguments with others (including teacher)
4. Responses with vulgar/abusive language
5. Whispering or undercurrent of conversation
6. Irrelevant changing of subject
7. Speaking out of turn
8. Interrupting teacher or other student
9. Mimicking teacher or other student

STUDY

1. Not bringing necessary books, materials, or supplies to class
2. Refusing to participate in in-class activities
3. Not responding when called on (different from not knowing answer)
4. Not taking notes or maintaining notebook or lab manual when required

> NOTE TO TEACHERS: Please feel free to consider behaviors other than those listed above as being inappropriate. We certainly have not been able to think of or list all possible "bad" behaviors. However, please retain this list in some convenient spot so you can note down for yourself those behaviors that you are adding to this list. We will go over these in the future. Thank you.

Each of the student's three afternoon teachers was to total the number of behavior incidents of each category and indicate the final total of "misbehaviors" on the rating scale form. This numerical score was then translated into a rating which was written into a special space on the form. The teachers then followed all other steps in the procedure and the student returned the form to PICA the following day. A facsimile of the form follows. All pertinent information has been filled in for this hypothetical case.



SCHOOL/PICA BEHAVIOR RATING SCALE AND HOMEWORK FORM

STUDENT John Jones DATE Today

1ST AFTERNOON CLASS Science **TEACHER** Mr. Smith

CLASS BEHAVIOR RATING: Average

Write in Rating: *High (-0)* *High Average (-1)* *Average (-2)* *Low Average (-3)* *Low (-4)*

Mark the **NUMBER OF TIMES** each type of inappropriate behavior was shown by this student in class today.

-1	-2	-3	-4	-5	**PHYSICAL** Behavior Inappropriate
X	-2	-3	-4	-5	**VERBAL** Behavior Inappropriate
X	-2	-3	-4	-5	**STUDY** Behavior Inappropriate

NOTES:

(Student Fills In)
HOMEWORK ASSIGNMENT None

L.E. Smith
TEACHER SIGNATURE TO VALIDATE
PICA CHECK SHOWS YESTERDAY'S HOMEWORK COMPLETED BY STUDENT
YES X NO ___ PARTIAL ___ N.A. ___

The Homework above was completed at home tonite.
YES ___
NO ___
? X
Mrs Jones
PARENT SIGNATURE TO VALIDATE HOMEWORK

2ND AFTERNOON CLASS History **TEACHER** Mrs Brown

CLASS BEHAVIOR RATING: Low

Write in Rating: *High (-0)* *High Average (-1)* *Average (-2)* *Low Average (-3)* *Low (-4)*

Mark the **NUMBER OF TIMES** each type of inappropriate behavior was shown by this student in class today.

X	X	-3	-4	-5	**PHYSICAL** Behavior Inappropriate
X	-2	-3	-4	-5	**VERBAL** Behavior Inappropriate
X	-2	-3	-4	-5	**STUDY** Behavior Inappropriate

NOTES:

(Student Fills In)
HOMEWORK ASSIGNMENT Problems #5-17, page 119

Mary Brown
TEACHER SIGNATURE TO VALIDATE
PICA CHECK SHOWS YESTERDAY'S HOMEWORK COMPLETED BY STUDENT
YES ___ NO ___ PARTIAL X N.A. ___

The Homework above was completed at home tonite.
YES X
NO ___
? ___
Mrs Jones
PARENT SIGNATURE TO VALIDATE HOMEWORK

3RD AFTERNOON CLASS Physical Education **TEACHER** Mr. Strong

CLASS BEHAVIOR RATING: High

Write in Rating: *High (-0)* *High Average (-1)* *Average (-2)* *Low Average (-3)* *Low (-4)*

Mark the **NUMBER OF TIMES** each type of inappropriate behavior was shown by this student in class today.

-1	-2	-3	-4	-5	**PHYSICAL** Behavior Inappropriate
-1	-2	-3	-4	-5	**VERBAL** Behavior Inappropriate
-1	-2	-3	-4	-5	**STUDY** Behavior Inappropriate

NOTES:

(Student Fills In)
HOMEWORK ASSIGNMENT None

Mr. Y.B. Strong
TEACHER SIGNATURE TO VALIDATE
PICA CHECK SHOWS YESTERDAY'S HOMEWORK COMPLETED BY STUDENT
YES ___ NO ___ PARTIAL ___ N.A. X

The Homework above was completed at home tonite.
YES ___
NO ___
? X
Mrs Jones
PARENT SIGNATURE TO VALIDATE HOMEWORK

Fig. 18 Behavior Rating Scale and Homework Form

The student also took this form home after school to have his parents review it and sign before returning it to PICA.

Bonuses were given for each unit of information secured on the form and for the return of the form itself. Fines were imposed for missing information (except where legitimate reasons precluded its receipt), including the absence of the form itself. The maximum deduction was $.75 and the maximum bonus was $.75, at the start of the data-gathering procedure. Manipulations were made through the term of the Project in both the amount of fines and bonuses and by attaching other consequences to delivery of this information.

It soon became evident that a number of students were beginning to default in bringing certain information from the schools. Some reasons were both clear and justifiable. One parent (a lone mother) refused to sign the form as she felt it an unjust intrusion on her evening hours (she attended only three parent meetings for the total year). Some teachers could not be bothered to complete the form because of classroom pressures. Others began to use the option of not signing the form as a maximum punitive measure. Each of these incidents was taken up with the persons involved. No final resolution was reached in most cases. Students also defaulted by not attending class and by forgetting sheets in lockers, notebooks, and (possibly) wastebaskets. Measures were instituted to bring some of this behavior in line with that desired by PICA and the schools (particularly class attendance which was a major problem in one school). However, some students were willing to endure heavy financial sanctions (up to -$3.00 in fines, for example) to not attend classes and "lose" the forms if they were still permitted to attend PICA the following day. Details of this system are undergoing analysis and will be reported in later publications.

THE PARENT TRAINING PROGRAM

Introduction

Results of the Year 1 program indicated that few benefits were derived from conducting therapeutic parent training programs based on giving goal-oriented information and discussion of individual and group problems. These "group therapy" sessions, conducted by a trained therapist, produced little behavioral or "attitude" change in either the parents or, even less obviously, in the PICA students. The concept of this program was changed for Year 2.

In the second year's parent program, emphasis was placed on the selection and development of behavioral objectives for changing, redirecting, or maintaining the behaviors of both students and their parents. Two different subject areas were selected for development, use, and analysis in Year 2:

1. How, and to what end, parents may set goals or objectives for home management and family behavior (particularly that of the child); and
2. How parents can manage behavior maintenance and/or modification programs within the home (again, particularly for the child).

Consistent with this rationale, two distinct parent training course components were developed. As the family composition, social and academic background, and school and age levels of these family members were similar to those of the Year 1 group, topical and procedural inferences were made from the Year 1 program. Classes were scheduled to meet once each week throughout the school year, with modification and objectives components meeting on alternate weeks. Thirty six total sessions were conducted. Incentives were offered for both attendance and participation through a contingency fund, and transportation expenses were reimbursed for the parents' travel to and from the project site. This was the basic program operated during PICA Year 2.

Although the concept of the parent program appeared sound, a number of presumptions about the program's utility for parents remained to be validated. Because of the parent program's diversity, many presumptions could not be answered before the end of the year. Therefore, a second parent program was devised that would run concurrent with the basic program, with parents of students in a different IBR-sponsored project.(DIAL). The behavior modification objectives of this DIAL parents program were drawn from a different text. As these parents demonstrated greater facility to set goals and objectives within the home, the "goals" portion of the original program was not included here. Further, the DIAL program was based on fewer total sessions (even discounting the "goals" sessions) than the basic program. The greatest single change in the behavior modification components was the acceleration of parent involvement in modification programs within the home: the original program began such involvement late in the process and the DIAL program began such involvement soon after its initiation.

The following describes each of the major components of these two different parent programs.

Setting Behavior Standards (PICA Parent Program, Part I)

Unlike the Year 1 program, where topics were chosen by the staff for discussion, this year the parents were asked to select topics that they wanted to discuss in the Behavior Standards class and for which they wanted guidelines and help in setting goals.

Part of the first meeting was devoted to outlining the objectives of the parent sessions. Specifically, it was to assist them in setting and arriving at reasonable goals (augmenting the contingency management component of the program). Questionnaires were distributed in which 57 topics were listed. Each topic, chosen by the PICA staff from problems faced in Year 1, represented a typical teenage-adult problem which is often unsatisfactorily resolved. Parents were asked to check each topic indicating if they wanted to discuss the topic soon, later, or not at all. Additional space was reserved for adding topics not already on the list. Of the topics listed, eighteen (coinciding with eighteen parental meetings) were to be selected for full discussion. The following eighteen topics were selected:

1. Teenage moodiness
2. Teenage restlessness and excitability
3. Teenage decision-making
4. The "I don't want to" attitude
5. The "I don't care" attitude
6. Rebellion against parental authority
7. Teenage runaways
8. Adolescent independence
9. Fighting fairly with your teenager
10. Handling your anger with your teenager
11. Helping your teenager communicate feeling
12. The influence of friends and groups on your teenager
13. Teenage responsibility
14. The teenager finding a vocation
15. Separating marriage problems from the teenager's problems
16. Assisting teenagers in studying at home
17. Teenage money management (good spending and saving habits)
18. Distributing responsibilities in the homework, housekeeping tasks

The first session was also spent discussing the PICA policy regarding money. The policy of the previous year was that money earned by the students was to cover every expense of the child and was to be his or her only source of income. That policy was modified slightly. School supplies, including towel and locker fees, material required for Home Economics or Shop class could be provided by the parent. This was not to include school lunches, for which the student is responsible. Major items of clothing like a winter coat, suit, or shoes also could be provided by the parent. Once the basic stock of clothing was provided, the student was to be responsible for all other clothing needs. Birthday and Christmas presents were acceptable, but lavish gifts were not to be given. Cash was to be excluded as a gift.

As might be anticipated, many of the parents objected. Following a discussion of their objections, it was decided that the next parent meeting would be focused on discussion of helping a teenager manage money. A lecture was given that had the following main points:

1. Money can be used as a general reinforcer. Examples given were taken from the CASE I and CASE II experiments.
2. It is important for a teenager to make decisions about how he wishes to spend his money. Parents should reinforce this idea.
3. When a teenager loses money of his own or feels he has spent it unwisely, parents can assist by reinforcing concepts that learning involves making mistakes and competence in money handling comes with experience, not with a parent stepping in and taking over.

The next session concerned itself with "Helping your teenager communicate his feelings." Using lecture material and excerpts from Haim Ginott's Between Parent and Teenager, the following concepts were regarded as those which should be reinforced:

1. A teenager's feelings, experience, or perception should not be challenged.
2. Listening with attention.
3. Avoidance of criticism and name-calling.
4. Praise given generously and appropriately.

Application of the above, it was suggested, enhances communication between parent and child.

"Fighting fairly with your teenager" followed the above session. The following materials were used.

1. Excerpts from The Intimate Enemy by Dr. George R. Back and Peter Wyden.
2. Excerpts from Between Parent and Teenager by Ginott.
3. Role situations where parents volunteered to play the roles of parent and child. Participants not involved in the drama were asked to score the fight, based on the scoring scheem from The Intimate Enemy.
4. A "feedback" sheet was prepared in which each parent was asked to respond to questions which evaluated the session. Goals suggested for reinforcement were as follows:
    a. Children need to fight fairly.
    b. Conflict between parent and child should not be viewed with discomfort.
    c. Children should be taught as early as possible to fight constructively. The best place is at home, and parents are the best partners.

d. Constructive fighting starts during a child's early years when parents can set limits.
e. Constructive fighting consists of a fighter who means what he says and where the meaning is obvious. There should be a large amount of communication with little misunderstanding; issues should not be vague.

Teenage responsibility was the topic of another session with the parents. Role playing techniques involving the parents supplemented a lecture. The following goals were suggested as those to be reinforced.

1. Parents and teenager should agree on what responsibility is.

2. Parents should reinforce participation of the teenager in delineating his responsibilities.

3. Parents should require the teenager to gradually accept more and more responsibility.

"Friends and group influence on your teenager" was the nature of the next topic. Lecture discussion, role playing by parents, and texts were used. The following goals were emphasized. Group membership should be reinforced since it offers the teenager

1. the opportunity to gain and test "independence."

2. support and reinforcement.

3. a sense of belonging.

4. the opportunity to respond to the rules of the group and thus get a sense of what is and is not appropriate behavior.

"The Drug Issue" topic was divided into two sections. The first session introduced drug names, classes, effects, use, abuses, controls,and tolerances. Films were shown which illustrate the above. The second session took place at a local TV station which presenttd for the group issues concerning the use of drugs as they relate specifically to the Washington metropolitan area.

The parents requested a session on marital problems and the effect which problems can have on teenagers. Using tapes supplied by Dr. Albert Ellis, guidelines were given which could be used to diminish "anxiety" in a marriage. Emphasis was placed on the fact that unusual anxiety in a family can have an adverse effect on children and make it difficult for parents to play their roles as reinforcing agents. Some of the guidelines were as follows:

1. Partners make mistakes and each one should make allowances.

2. Frustrations and difficulties are inevitable in an on-going relationship

such as marriage.

3. A marriage relationship cannot spontaneously progress in a smooth way. It requires actively working at it to maintain desirable behavior.
4. Eliminate unrealistic ideas of marriage. It does not have magical power to heal.

Anger was a subject of special consideration. The following points were made to assist parents in working with this kind of behavior which often does not get reinforced.

1. Everyone gets angry.
2. Anger is normal and healthy.
3. The expression of direct anger should be reinforced.
4. Anger which is not permitted direct expression leads to undesirable behavior.

To convey this thought, a lecture-discussion elaborating on Theodore Rubin's The Angry Book was used.

Using Ginott's Between Parent and Teenager, one session was spent discussing rebellion. Parents were asked to discuss those behaviors which their teenagers display which can be classified as justifiable or injustifiable rebellion.

In assisting parents in working with these behaviors, the following points were made:

1. Adolescence is a time of stress and turmoil. A period of rebellion during these times is normal.
2. Differentiate between accepting and sanctioning behavior.
3. Avoid treating the teenager like a child.
4. Resist the temptation to intervene too often in a teenager's decisions.
5. A teenager's privacy ought to be respected.
6. Avoid cliches, preaching, lecturing, and futurizing.

The remaining sessions of the Behavior Standards meetings were devoted to watching and discussing TV tapes concerning the problem of runaways and drug use in the Washington metropolitan area.

Contingency Management Procedures (PICA Parent Program, Part II)

Objectives

The training program in contingency management for parents was designed to accomplish specific behavioral goals. The general purpose was to instruct parents in the basic concepts and principles of behavior modification. In addition, the program was also aimed to train parents in the use of reinforcement contingencies designed to modify deviant and maintain desirable behaviors. The program was guided by specific sub-objectives for each of the following main objectives:

1. Concepts and principles of behavior modification: Given a series of lectures and textual materials on the principles and concepts of behavior modifications, parents will demonstrate their acquisitions of such materials by a 90% or better score on tests.
2. Behavior observation and recording skills: films and video tapes will be used to train parents to observe and record behavior. Parents will demonstrate their skills in these activities by obtaining a reliability score of 0.90 or better on test films and tapes.
3. Interaction Analysis: Through the use of case example and films, parents will be provided training in defining target behaviors, determining the likely consequences for these behaviors, and proposing contingencies to modify target behaviors. Using other test cases, parents will demonstrate their skills in contingency analysis by proposing feasible behavior modification designs, as judged by the group and instructor.
4. Implementation of modification programs: Each parent will construct a list of objectively specified behavior problems of their own child. From such a list, each parent or parent-set will select one target behavior, and design and implement a modification program to be conducted at home. The proper conduct and results of each program will be assessed by phone calls, visits to the home for observations, and the examination of data during group meetings.

Procedures

During an initial intake interview with each family, the general objectives of the parental program were discussed with all parents. Parents were informed that participation in the parental program was to occur on a weekly basis. The sessions for the "Setting Behavior Standards" component of the program was scheduled on alternate Wednesday evenings, 8 to 10 PM. The second part, training in Contingency Management, was scheduled to occur on alternate Friday mornings, 8:30 to 10:30 AM. Participation in the parent program was informally stated as a condition for the intake and continuance of students in the PICA Program. Arrangements were made with the parents' employers, when necessary, to provide time-off to attend the sessions at IBR.

Instructional Materials and Procedures

All instructional and training activities occurred in the same sequential order as the stated objectives. Instructions in basic concepts and principles of behavior modification were accomplished by means of lectures and textual materials. The text for the class was Patterson and Guillion's Living with Children (Champaign, Illinois: Research Press, 1968). This book was selected because it is written on a low reading level and in a programmed format. The authors state that most parents with seventh to eighth grade reading skills should be able to use the book. The programmed format allowed the parents to progress at their own individual rates. These features of Living with Children were judged to be important considerations due to the highly variable educational backgrounds of the parents (standardized reading test scores from 0-12 + grades).

During the first session, each parent was given a book and the programmed format was explained. The instructor orally presented the first eight frames, to insure that the parents understood the proper use of the book. Following this, all work in the book was done individually, with certain exceptions. For three non-reading parents, the class assistant read orally and accepted verbal responses to the material in the book.

The instructional procedures during this phase of the program consisted in (1) making an assignment in the programmed book, (2) parents responding individually to the assigned material, and (3) taking a quiz on the assigned material. Quizzes were administered as soon as the parents individually indicated their readiness. Frequently, parents would ask for additional information or clarification questions on the assigned material before taking the quiz. These questions were answered individually and the quiz administered. Quizzes were scored and parents provided feedback immediately upon completion of the quizzes.

An assigned unit of material was considered completed when the parents passed the quiz with a 90% or better score. When a parent failed to meet this performance criterion, he was required to review the assigned material and take another quiz. With occasional exceptions, parents were able to satisfactorily complete assigned work on their initial encounter with the material.

After completing an assignment, the parents were free to proceed to the next unit where the same procedures were repeated. The only limitation on how much a parent could complete was the amount of class time. All work during this part of the program was done in the two-hour class sessions. During any one class, it was rare that a parent completed more than two assigned units of work.

Lectures were also given during these sessions. The lectures were designed to review, clarify and present illustrations of the principles and concepts covered in assigned study material. Since the examples presented in the book used young children, the lectures emphasized the application of behavior modification techniques to adolescents. Further, these lectures stimulated class discussion during which the parents had a chance to use their newly acquired vocabulary.

Training in behavioral observation and recording was started as the parents completed the training in concepts and principles. This second phase of the program was designed to train parents to observe behavior using consistent definitions of behavioral events. Video tape recordings of adolescents' behaviors within a group discussion (Year I PICA) was used as the primary learning media. These tapes were previewed, behavioral events selected, and their frequencies (events per minute) of occurrence determined. The selected behavioral events ranged from gross physical movement to the verbalization of selected words or phrases.

Each session of observation and recording training consisted of several practice exercises followed by a test exercise. Prior to each exercise the parents were given a suitable recording form and a definition of the behavior to be observed and recorded. Following each practice exercise, the accuracy of each parent's observation and recording was checked against those made by the instructor and class assistant during the previewing of the video tape. When there were disagreements in observations, the definition was re-stated and the video tape run again. This process continued until there was at least 90% agreement in recordings. At the end of each observation and recording session, the parents were given practice in graphing behavior. They were asked to construct graphs for each behavior recorded during the session.

In the third phase of the program, parents were asked to apply their observation skills and knowledge of social reinforcement principles to the analyses of social interactions. In addition, they were expected to acquire the skills of objectively pinpointing problem behaviors in family interactions, determining the likely consequences for these behaviors, and proposing feasible contingencies for the modification of these problem behaviors. The instructional materials for this section of the program consisted of successful behavior modification cases taken from the literature and films depicting parent-child and family interactions. During each session the parents were asked to analyze several behavior modification case examples. For each example, the instructor provided the parents with a general description of the problem under consideration. This problem description also included statements about the nature of the interaction the target subject had with his environment. The parents were then asked to objectively specify the problem behavior, identify the kind of consequences responsible for the maintenance of the behavior, and propose a likely set of contingencies that could be used to modify the problem behavior. After the parents finished with their analysis of the problem, the instructor presented the procedural details and results of the case example. The cases used as test examples and films were treated in a similar manner.

The final phase of the program was devoted to assisting parents in the implementation of behavior modification programs at home. Each parent was provided with a form to take home on which they were to list the behaviors they wished to modify. This form asked the parents to consider both appropriate and inappropriate behaviors, together with a description of the circumstances upon which the behaviors are observed to occur. During the following group meeting, each parent or set of parents presented their list of target behaviors to the class. In turn, the group assisted each parent in arriving at objective specifications of the target behaviors.

Once target behaviors were specified, parents were to consider the details of the program design. Some parents selected a single behavior for observation, such as "arriving to PICA on time," "returning home at a specified time at night," etc. Other parents selected several behaviors to be managed under a point system, such as grooming behaviors, specified tasks involved in the cleaning of personal bedrooms, specified tasks to be performed at home, etc. Next, the parent specified how behavior records were to be kept, point values for behaviors, and the back-up reinforcers.

Results and Discussion

The results of this attempt to train parents in contingency management procedures can best be considered in terms of the previously stated objectives of the program. The first three meetings were devoted to the acquisition of concepts and principles of behavior modification. Most parents had no difficulties in satisfactorily completing the assigned textual material. Most parents passed the quizzes with a 90% or better score on the initial attempt, with no parent requiring more than two quizzes to meet the criterion. The text book, Living with Children, appeared effective in teaching the concepts and principles of social reinforcement theory. Parents had few questions about the clarity of the text material. Most of their questions dealt with the application of principles to teenage children and some points related to terminology (e.g., reinforce, reward, award, etc.). Questions pertaining to applications were covered in lectures and discussions.

The majority of the regularly attending parents (12-13 of 21 total) were able to complete all the assigned text material within three sessions. Parents who did not finish the assignments in three meetings were allowed to continue their work in another section of the room. Other parents moved to a different section of the room to use the video tape equipment for observation and recording training. By the third session of observation and recording training, the majority of parents were consistently making observations with 90% or better accuracy. However, in the first two sessions of observation training, it was necessary to stop and replay the video tape several times in order to achieve the accepted level of accuracy. Several parents expressed displeasure in having to watch TV monitors, complaining of boredom, eye fatigue, etc. Consequently, several rest periods were scheduled during observation practice.

The section of the course devoted to contingency or social interaction analyses required the parents to use their knowledge of behavioral principles and their observation skills for the analysis of parent-child relations. During these activities the parents were presented with several examples of child behaviors or family interactions that need modification. The parents' task was to analyze each case example and propose a feasible behavior modification design. Each example was judged in terms of the specificity of the behavior problems, the analysis of the likely maintaining variables, and the type of contingencies that could be employed to modify the behavior. The group demonstrated acceptable skills in analyzing these examples and proposing modification contingencies. However, despite the very strong emphasis placed upon positive reinforcement procedures, some parents consistently found it difficult to avoid choosing applications of aversive procedures. Throughout the program a few parents voiced opposition to the use of positive reinforcement procedures in order to bring about desirable behavioral changes in children ("the kids should want to do the right thing").

During the final part of the program, parents were asked to design and implement behavior change programs for their own children at home. They were expected to use their knowledge of contingency management procedures to establish and maintain consistent record keeping at home. However, during this phase of the program, attendance dropped, opposition to the procedures increased and various excuses for the failure to keep consistent data were offered. It was felt that a possible explanation for the drop in attendance was the scheduled Friday morning meeting time. Meetings were therefore changed from Friday to Wednesday evenings, 8 to 10 PM. This change resulted in an increase in attendance, but no increase in program design and consistent data keeping. The parents continued to make excuses for their lack of consistency, such as forgetting or being too busy to check on the performance of target behaviors, disruptions in the home, lack of reinforcers, etc. Consequently, this portion of the program has been carried over into the summer between Years 2 and 3. Reports will be presented in later publications.

The DIAL Parents' Course in Behavior Modification

The IBR Diagnostic and Learning Center (DIAL) program is designed to modify a student's behavior at school, the Learning Center, and home. The Parents' Course is designed to enable parents to gain skills needed to maintain and strengthen desirable academic and social behavior while the student is attending the Learning Center and after he has returned to his regular, full-time school schedule.

Summary of DIAL Program

The Diagnostic and Learning Center receives students by referral from local school counselors, pupil personnel workers, psychotherapists, and allied professionals in the community. Parents pay for all testing and educational services. Most students attend local junior high schools. Most families are middle and upper-middle class in income level and educational attainment. More than a third of the students are adopted. More than a third of the families are separated, divorced, or divorced and remarried. Almost half the families have previously been, or currently are, in some program of individual or group psychotherapy. Students vary in the degree of their academic and social problems, but the majority have had between two and three years of failing grades in school. Most have been engaging in moderately to severely disruptive behavior at school and at home.

Students receive a full battery of academic tests before coming to the Learning Center. They attend the Learning Center from 2:00 to 4:00 PM, every day after school, working on programmed and short unit materials and studying individually at their own skill level and rate. As they complete program units at 90% or better, they are paid in points and lounge breaks. Points are later converted to daily payments for their allowance and lunch money. Most students take the "Behavior Rating Scale and Homework Form" to school with them each day, returning it to the Learning Center staff for monitoring and payment of additional bonuses for good school work. They then take the sheets home for payment and homework monitoring, if the parents have put a modification program into effect. If they have not, the sheets remain at the Learning Center. Conferences are held with each student's counselor as needed to coordinate the program between home, school, and the Learning Center.

The Parents' Course

The course is designed to fulfill a number of objectives.

First, to more thoroughly inform the parents about the principles and procedures used at the Learning Center so they will be able to integrate their child's experience in the program with what they do at home, and to enable Learning Center staff and parents to communicate more adequately and precisely about all aspects of the program.

Second, the parents' course is designed to teach parents to recognize and appropriately use the basic vocabulary of behavior modification. This is the first step in enabling them to analyze the principles and procedures of reinforcement and shaping used in various home and school situations.

Third, the course is intended to train parents in designing and implementing successful at-home modification programs. This includes learning to modify programs to insure that they are initially effective and remain effective for as long as needed.

The class is held one evening a week (from 8:00 to 10:00 PM) for thirteen weeks, and is divided into two parts. The first part is a general introduction to the concepts, terminology and procedures. This takes six weeks and is centered around the text Living with Children, by Patterson and Gullion. The classes are film, slide and lecture presentations designed to fulfill the first and second objectives of the course. Parents work through the text at home, mailing in response sheets and tests each week. Their work is returned to them at the beginning of each class. There is no minimum criteria for going to the next unit, though the majority of the parents get over 90% correct on the tests. The textual material is discussed during the class and there are numerous supplemental handouts.

The second part of the course is mainly group discussion of ongoing programs that parents have begun at home. As parents begin programs they are asked to present them to the class. After their initial presentation they are called on during following classes for a status report. Only parents who have begun programs are called on. No parents are pressured to begin programs at home, though as other parents report success it clearly encourages others to try. During this time individual conferences are scheduled with parents as frequently as needed to help them design and implement their programs. Progress is often monitored by frequent phone calls. During this period the parents work through a second text, The Modification of Human Behavior, by Leonard Fielding, M.D. Parents mail in, or bring to class, their response sheets and tests. The text is not regularly discussed in class and is intended to maintain and strengthen previously acquired vocabulary and concepts. No contingencies are placed on completion of the home assignments.

The results of the course, given in this form for the first time in the spring of 1970, can be described as quite successful. Eighteen parents (seven couples and three mothers) attended the class regularly. Absence for this group was generally the result of major illness, out-of-town trips, or the pressure of the husband's job.

Most of the eighteen who regularly attended this spring regularly completed the home assignments and scored between 90 and one hundred percent correct on the tests, through the entire Patterson and Guillion text and the first half of the Fielding text (four assignments). After that, assignment completion fell off considerably and several parents suggested that there be regular discussion of the week's assignment at the beginning of each class. That procedure will be followed in succeeding course presentations, and seems likely to help maintain both home study behavior and consistent class attendance.

Most important, ten of the eleven couples or mothers who regularly attended the classes put successful behavior modification programs into effect at home. Some were small, halting first attempts, while others were thorough, consistently maintained, and quite effective. All of the parents who put programs into effect indicated they are going to maintain the programs in the summer and coming school year, and an ongoing program for these parents is being planned, at their request, for next year.

Since the terminal objective of the course is effective parental programs with their youngsters, the following is a description of several representative projects.

The "A" Family

The "A"s were referred by their son's school counselor. Allen "A" was an eighth grade student who had been failing consistently for two years and who was engaging in increasing amounts of disruptive classroom behavior. At the time of referral he had been spending over half of his school time in the counselor's office area, under the supervision of the counselor. Most of his teachers had requested that he not return to their classes. Though he participated in group therapy at school, it had had no noticeable effect on his behavior. His counselor, who was one of the co-therapists, described him as severely disturbed. His parents were frustrated by their inability to deal with him effectively, and were distressed by his threats to engage in delinquent behavior and to run away from home. They were particularly worried because several of his friends had either been caught stealing, or had run away from home. They disagreed about how to deal with Allen and indicated that they also had considerable difficulty with their older daughter.

Allen's school behavior improved as soon as he began attending the Learning Center and he turned out to be easily reinforced for appropriate academic and social behavior. His parents attended the classes regularly and consistently completed the home assignments. Soon after the beginning of the second part of the course, they effectively put into operation two home programs, after a planning conference with the project coordinator. One was to improve Allen's around-the-house behaviors. It was effective from the beginning. Following is a copy of the program statement prepared by Mr. "A" who also prepared the weekly graph of point earnings. The contingency statement had a daily tear strip on the left which was used to compute each day's earnings and add them to the previous total earnings for the week. The cumulative point earnings graph was also maintained daily.

Home Program

Week-end Privileges - trips to Plaza - movies - skating - bowling - overnights
bike trips - golf, etc.: 55 points - 1 privilege
60 points - 2 privileges
65 points - 3 privileges

All tasks to be done before dinner - WITHOUT reminding. (Guitar practice may be after dinner if no homework).

Points	Tasks
1	Eat breakfast (at least 3 different items).
1	Make bed with spread in MORNING.
1	Brush teeth (after breakfast & bedtime).
1	Empty trash-outside (by 6:00 PM).
1	Hang up clothes (NOT on Bill's bed).
1	Wash hands & face before dinner.
1	Clear table IMMEDIATELY after dinner.
1	Help with dishes WITHOUT bickering with Mary.

Points	Tasks
1	Practice guitar (or take lesson).
1	Get to bed on time (10:15 PM - 11:15 PM or 11:30 PM on Friday and Saturday).
—	Bonus points for doing needed jobs without being asked.
______	Points earned for the day.
______	Points earned through the previous day.
______	Total points earned for the week.

Both parents agreed that once begun, Allen was very eager to have his earnings posted, and he usually made more points each week than he needed in order to earn the maximum three weekend activities. Both the contingency statement and the cumulative graph were publicly posted on the kitchen wall. All the behaviors indicated were behaviors with very low frequencies prior to initiating the program, and were often the source of much family arguing.

Allen was also earning points at home for his school behavior and homework completion. A separate cumulative graph was kept on the wall, and Allen was paid points for his behavior ratings from his teachers, for beginning his homework at a specified time, for completion of assignments and for bringing home tests. The goal was a bowling ball and bag. The program was very effective, though it took about two weeks for it to be consistently effective. Near the end of the semester, Allen was close to earning the bowling ball, but he negotiated with his parents to extend the program longer to enable him to earn a new bike instead. The parents agreed, the earnings required were increased for the new goal, and the program continued to work very well.

Allen's grades at school increased markedly, and his parents report total changes in his social behavior at home, all for the better. He no longer verbalizes approval of delinquent behaviors, and indicates that running away from home is "stupid."

The "B" Family

The "B" family was referred by the school counselor. Jim "B" is a tall, lanky, eighth grade student who affected both a "hippie" and "tough" appearance. He had been failing all of his courses this year, and had failed almost all the preceeding year. The most dominant aspect of Jim's behavior was a sullen, hostile verbal opposition to all adult and school values and behavior standards. He continually threatened to quit school as soon as he could, and expressed contempt for the students at his school. He and his older brother had never gotten along with their stepfather, who grew up during the depression and was consistently opposed to our approach of paying students for learning. Jim came to the Learning

Center through the spring semester and worked only as much as was required to subsist economically. His sullen verbal behavior changed little. His parents attended only the first four classes in the parents course.

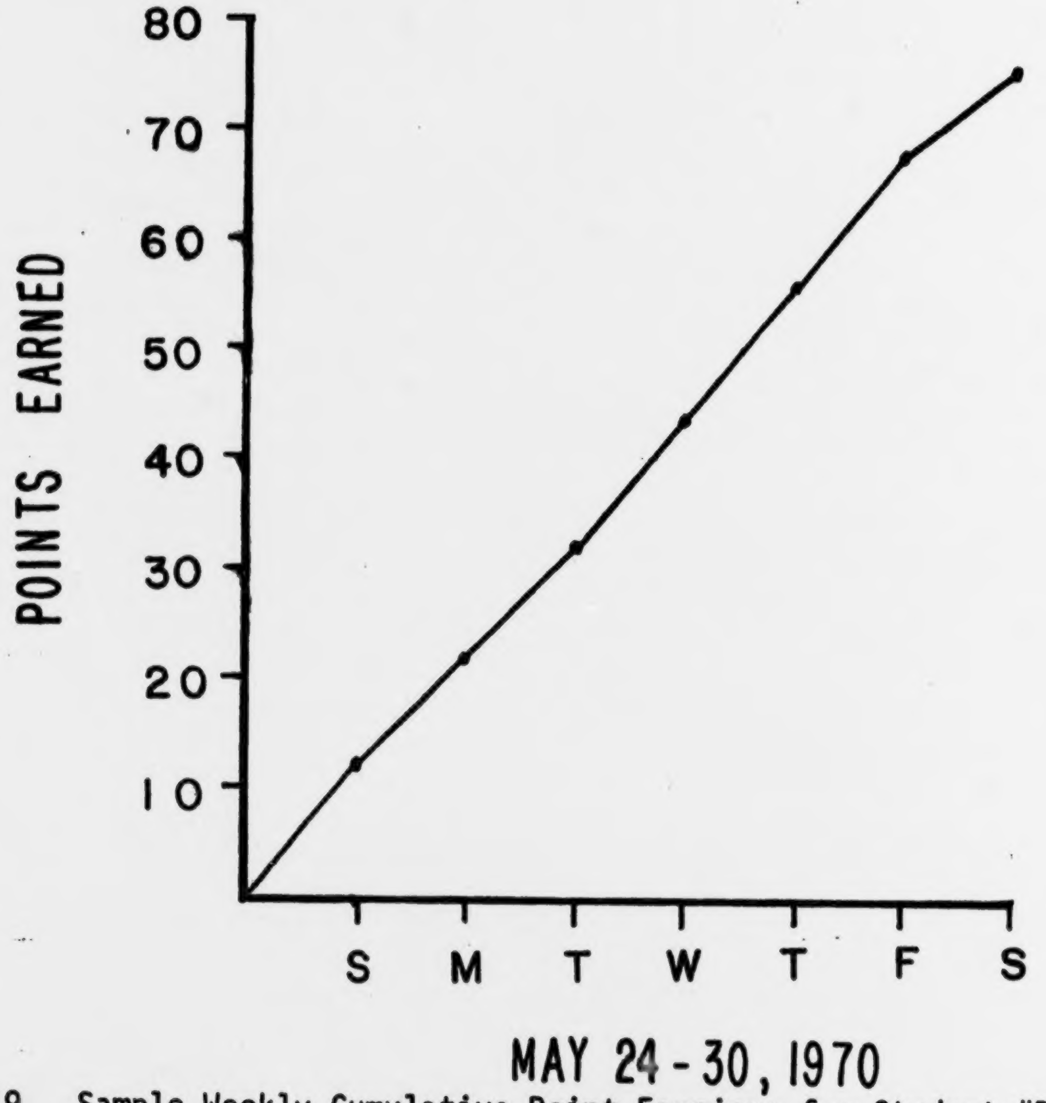


Fig. 19 Sample Weekly Cumulative Point Earnings for Student "B"

They eventually did, however, agree to a contingency program for Jim which they maintained consistently through the last six weeks of the semester. Under this plan, Jim earned time with a friend on weekends (including "overnights" at his friend's or his home) by having his "Behavior Rating Scale and Homework Form" signed every day by three teachers. This was considered by the Learning Center staff to be the first, and crucial, stage in reinforcing him for appropriate academic and social school behaviors. His parents were consistent in the face of his extreme skepticism, and allowed him to use an earned "overnight" on a weekend when they were visiting relatives out of state. During the time the program was in operation Jim's verbal behavior changed noticeably; he was far less sullen and argumentative, far more open to discussing problems and compromising on solutions. These changes were noticeable at home and the Learning Center. His school grades did not improve, but his counselor and teachers report similar changes in verbal behavior and personal manner in the school, and they consider this an important first step in shaping

Jim's academic and social behavior. His parents plan to continue a contingency program for him this summer to earn allowance money.

The "C" Family

Jeff "C" was in the ninth grade last year. Even though very bright, he had been close to failing ever since entering junior high school. Jeff's problem is that he is very quiet and engages in almost no social behavior. He rarely talks to anyone, has no friends, and often spends hours sitting alone daydreaming or doodling. He is a thin, gaunt boy who was referred by his therapist. Progress had been made during two years of therapy. It took a week to adequately shape him to study at the Learning Center (using heavy cash bonuses for small steps), and from then on he studied diligently in the afternoon. His parents attended the parents' course regularly. They had difficulty thinking of reinforcers for Jeff since he was such an inactive, withdrawn boy. They finally decided to use the one thing they knew he wanted and liked: his meals. He earned "money" in a home banking account which he then used to pay for his three meals a day by selecting from a restaurant type menu. Mr. and Mrs. "C" decided to use money, rather than points, to make it as realistic as possible. He earned his money by household tasks, such as cleaning his room and making his bed, by personal grooming behaviors, and by academic behaviors, such as bringing home classwork and test papers and completing homework assignments. Mrs. "C" kept a record of Jeff's daily account for his meals. Both

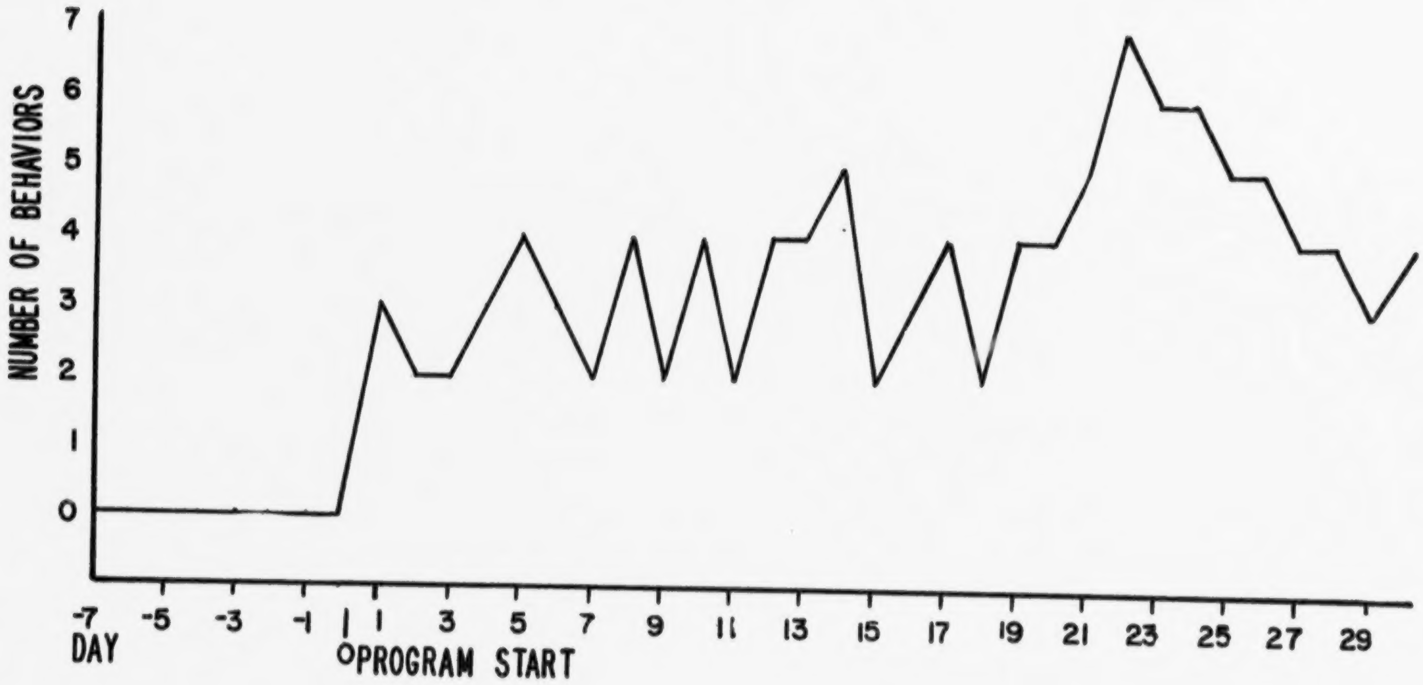


Fig. 20 Recorded Daily Occurrence of "Self-Initiated" At-Home Behaviors, Student "C"

parents felt the program worked well. Jeff missed part of one meal, and has earned all he wanted since then. His therapist was quite concerned about the program at first and Jeff's behavior was watched very closely at the beginning, but it was soon apparent that he was becoming increasingly more active, was talking and smiling with much greater frequency, was dressing more neatly, and was getting better grades in school. There were no signs that he resented the program or was being "harmed" by it. Mrs. "C" kept a chart of Jeff's "self prompted" or self initiated, behaviors. Jeff is not aware of it. It records all behaviors that his parents did not verbally suggest or require or remind him to do. Both parents feel that this is Jeff's most crucial behavior problem. Mrs. "C" said that the baseline for this type of behavior was "zero back to infinity."

Jeff's school grades improved mearkedly this semester, though he still actively participates only in Spanish class. His parents are encouraged by his progress and the confidence they feel in the procedures used.

Conclusion

Programs resulting from the parents' course have been effective, many remarkably so. It is expected that as the course procedures are gradually refined, it will become even more effective.

The Parent Newsletter (PICA)

Another important feature of the parent program was a newsletter distributed each week immediately before the scheduled parent meeting. This newsletter pertained only to the PICA Project and was not distributed to the parents involved in the DIAL parent program. The newsletter became the vehicle for announcing and emphasizing topics to be covered in the weekly meetings. Feature articles covered impending events and described the outcomes of special project components, providing the parents (and all school staff with whom the project dealt) with an on-going analysis of the program. A report was given in each newsletter of the progress made by each student the previous week, including:

1) number of days attended and tardy
2) grades earned in English and math curriculum areas
3) average behavior rating
4) total earnings
5) cumulative amount saved

Reports from the parents indicated that the newsletter was to them an important source of information and that they were pleased to receive such up-to-the-minute reports. However, most stated they were not able to act on the information or use it in any important way. All general information disseminated in the Parents' Newsletter is presented in the Addenda to this report. Similar responses were received from school staff.

The newsletter staff often solicited from the students reports about or their impressions of their activities at PICA, at school and at home. These commentaries drew frequent and wide-ranging comments from parents and school staff. Frequent requests were made to both parents and school staff to submit comments about PICA, the schools, educational methods and objectives, or any other topic they wished to discuss to the newsletter for publication. Not one was received. Only limited possibilities can be foreseen to involve school staff with the information flow in the newsletter. The most frequent comments from such staff center around the degree to which the student's earnings approximated their salaries, the quantity of time such reporting activities must detract from the "true" work of PICA, and why PICA would permit students to be critical of the school systems that trained them before reaching PICA.

The utility of such a device must be seen only as a medium for passing on to the parents information, unless contingencies are attached to its use. These may be in the form of direct parent and student involvement in its preparation or negative and positive consequences for not acting in response to programs directed by the newsletter.

Overall Results and Discussion

The general results of the PICA parent program indicate that a second restructuring of the program must be done before Year 3. This conclusion was reached from the following information:

1) Attendance at PICA parent class sessions averaged approximately 14 (out of 21) per session, with the exception the behavior management implementation phase of the contingency management component when attendance dropped to 4-7 per session.
2) Contingency management programs within the home were not developed in great number (a total of 5 programs in 12 homes) nor were they maintained with consistency.
3) Parents commented frequently that PICA was so good at solving problems it didn't seem they had much to do in that regard.
4) Parents always expressed great interest in the Setting Behavior Standards class discussions, but at times (even by non-attendance) demonstrated unfavorable reaction to the contingency management class methods and subject matter.
5) Beginning studies of the effectiveness of a "PICA man-on-the-street" who visited homes to gather data and discuss design and implementation of new programs showed improvement in these skills (over the "parent delivery in class" system) and greater information interchange between PICA and the parents.
6) Parents often commented (and the staff agreed) that a series of 36 weekly meetings was possibly an unnecessary prolongation of in-PICA contact and that better means should be found to provide all necessary training in a less drawn-out program.
7) Attendance at the DIAL parents sessions was high (approximately 18 out of 23 total parents), participation was excellent, and numerous long-term behavior management programs were designed and conducted. Even though this class was given for parents of greater educational and social competence than that displayed in PICA, its specific methods may have much

to recommend for in-PICA use.

8) Parents indicated verbally that the use of cash money as a reinforcer for their participation in the PICA parent program was demeaning ("Well, we should do this because we love our children, right?").

The Year 3 program is being constructed with these findings in mind. It appears that this next year's program will be based on the following general guidelines.

1) Parents will be visited in their homes at the start of the summer before the years's PICA program begins. The staff will discuss the overall objectives and procedures of PICA and will collect the first in-home data (medical history forms completed by the parents). This will be the first of many home visits made by the staff.
2) Elements of the parent program will be conducted during the summer, prior to the start of the PICA school year. These sessions will be designed to train the parents as behavior modifiers so that modification or maintenance programs are begun before PICA begins its contact with the students. If parents do not begin such programs, their children will not be admitted into the program in the fall--entrance will be contingent upon the receipt of a specified quantity of home behavior modification data.
3) Specific programs of training will be required for parents who demonstrate incompetence in providing reinforcement and punishment in appropriate situations.
4) The parent program components conducted at the project site during the school year will be fewer in number and of only one general kind. It is possible that only one or two sessions will be held on-site each month. The program will concentrate in training the parents as behavior modifiers first. Then, if it is in fact required, they will be trained to use the language idiomatic to operant psychology and behavior modification. Data resulting from modification programs will initially be picked up at the home by project staff and, after such data production becomes stabilized, data reporting sessions will be conducted during the on-site parent meetings. Higher probability in-class behaviors will be structured as consequences for lower probability behaviors (e.g., the parents can discuss "goal" oriented material only after delivery and discussion of behavior modification data). Thus, the behavior standards material and contingency management procedures will be part of the same class scheme. Also, money will be used as reinforcement only when it appears to be effective (possibly only as direct payment for cab-fare costs paid by parents to get to the meeting site). Other generalized reinforcers (such as Top Value Stamps) that the parents do not view as demeaning bonuses for appropriate work with their children may be used in place of money. Parents may also be more directly prompted to participate in the construction and production of the Parents' Newsletter. All parent meetings will be held in the same environment use for PICA student study and similar procedures used in management of these programs.
5) When data reporting has stabilized in the PICA parent meetings, more reliance will be placed on mailed or telephoned data transmissions. This will also

be done through a fading procedure and maintenance of contact with the parents will be effected by the "PICA Man-on-the Street." Parents meetings at the project site will be held periodically until the end of the school year.

Addendum I

PICA Forms Used to Report Student Status and Progress to Schools

OBJECT #1 - PICA Academic Testing Report Form
OBJECT #2 - IPI Mathematics Placement Profile (PICA)
OBJECT #3 - Explanation of PICA Project Grade Report
OBJECT #4 - PICA Project Grade Report Form

These objects are included as addenda to illustrate the specific methods used to report student status and progress to their schools. Objects #1 and #2 were considered confidential information and their contents were not made known to parents. However, the PICA Project Grade Report (and explanation) was sent to parents at the end of marking periods. All summary information and description was included (as on the school copies) except for the "Nature of Study Program and Approx. Grade Level." This information was withheld from parents as phrasing such as "3rd-4th grade fractions" concerns detrimental to the student's progress."

PICA ACADEMIC TESTING REPORT

NAME__________________ SCHOOL__________________ GRADE__________
COUNSELOR__________________________

FOR PICA ACHIEVEMENT/DIAGNOSTIC TEST BATTERY ADMINISTERED:

PRE-PROGRAM__________
DURING-PROGRAM__________
POST-PROGRAM__________

ENGLISH TESTS

GATES-MACGINITIE READING TEST

FORM	SPEED	ACCURACY	VOCABULARY	COMPREHENSION
Raw Score				
Standard Score				
Percentile				
Grade Score				

AVERAGE GRADE SCORE

STANFORD ACHIEVEMENT TEST COMPONENTS

FORM	USAGE	PUNCTUAT.	CAPITALIZ.	DICTIONARY SKILLS	SENTENCE SENSE
Number Correct					
% Correct					

AVERAGE GRADE SCORE

SEQUENTIAL TESTS OF EDUCATIONAL PROGRESS COMPONENTS

FORM	LISTENING TEST	ESSAY TEST
Raw Score		
Converted Score		
Percentile Band		

(Standing in current grade norms)

MATHEMATICS TESTS

STANFORD ACHIEVEMENT TEST COMPONENTS

FORM	COMPUTATIONS	CONCEPTS	APPLICATIONS
Number Correct			
Total Questions			
Grade Score			

INDIVIDUALLY PRESCRIBED INSTRUCTION IN MATHEMATICS PLACEMENT TEST

(Please see attached "Mathematics Profile" and "Student Profile" sheets for information regarding current grade placement in each IPI skill component.)

ipi
MATHEMATICS

MATHEMATICS PLACEMENT PROFILE (PICA) 101

STUDENT NAME ____________________

SCHOOL NAME ____________________

NOTE: IPI tests place students at specific skill/grade levels in each math area. An "X" in the placement level column indicates competence through the entire math area, at score of 90%+

MATHEMATICS AREA	DATE OF TEST	School Grade Levels and Correlates with IPI PLACEMENT LEVELS B–H								PLACED AT LEVEL
		Grades	1st	2nd	3rd	4th	5th	6th+		
		IPI Level	B	C	D	E	F	G	H	& Grade
NUMERATION (01)	9/22/69 THRU 9/30/69	MAX. PTS.							UNITS NOT YET AVAILABLE	
		SCORE								
		%								
PLACE VALUE (02)	"	MAX. PTS.								
		SCORE								
		%								
ADDITION (03)	"	MAX. PTS.								
		SCORE								
		%								
SUBTRACTION (04)	"	MAX. PTS.								
		SCORE								
		%								
ADDITION/ SUBTRACTION (34)	"	MAX. PTS.								
		SCORE								
		%								
MULTIPLICATION (05)	"	MAX. PTS.								
		SCORE								
		%								
DIVISION (06)	"	MAX. PTS.								
		SCORE								
		%								
COMBINATION OF PROCESSES (07)	"	MAX. PTS.								
		SCORE								
		%								
FRACTIONS (08)	"	MAX. PTS.								
		SCORE								
		%								
MONEY (09)	"	MAX. PTS.								
		SCORE								
		%								
TIME (10)	"	MAX. PTS.								
		SCORE								
		%								
SYSTEMS OF MEASUREMENT (11)	"	MAX. PTS.								
		SCORE								
		%								
GEOMETRY (12)	"	MAX. PTS.								
		SCORE								
		%								

Based upon prototype originated by the Learning Research and Development Center. As Field tested by Research for Better Schools, Inc.

P3 – 1969

APPLETON-CENTURY-CROFTS
DIVISION OF MEREDITH CORPORATION
440 Park Avenue South, New York, N. Y. 1001€

TO: All School Personnel and PICA Staff

FROM: James Filipczak, PICA Coordinator

SUBJECT: Explanation of PICA Project Grade Report

DATE: October 15, 1969

The following descriptions are provided to briefly explain key elements of the PICA Project Grade Report. These reports will transmitted to school counselors, principals, pupil personnel workers, parents, and PICA staff at the end of school marking periods for each PICA student. Each report element, except "Anecdotal Summary" is a summation of data gathered for the student during the school marking period/grade report period. The first six lines of the report are self-explanatory. Earnings information is included as a gross and relative index of student performance.

Actual Total Time and Percentage of Time Spent in Project Activities

Included in this summary are most data relating to time spent in Project activities. Each of the first four categories listed combines specific information from PICA daily reports. "Self-instructional Study" combines all information about the student's time spent in study, testing, and review of self-instructional materials (programmed instruction). "Classroom Study" combines time spent both in classroom/laboratory participation and testing for these functions. Classes will not begin in PICA until the 9th Project week. "Staff Discussion-Counseling" reflects time spent both in group seminars (e.g., orientation sessions and weekly academic reviews) and private interviews with principal staff concerning both existent student problems and planning for Interpersonal Skills Class elements. "Student Chosen Leisure" synthesizes time spent in the lounge, bathroom, at the water fountain, and on the "free bench" (a break which, unlike lounge time, is not paid for by the student). "Staff-Forced 'Time Iyt'" refers specifically to the time the student spends on the "free bench" by order of the staff--usually for inappropriate behavior.

Average PICA Behavior Rating Grade

This grade is computed by averaging daily PICA Behavior ratings for the report period. PICA Behavior Ratings are given by each staff member who has contact with the student. This average rating is multiplied by 20 to provide a percentage that is then matched to the grading formula shown below.

Grading Summary for PICA Students

For the three PICA study subjects, mathematics, English language, and Interpersonal Skills, key information is provided. The nature of the study program (behavioral skills being developed) and approximate grade level are presented. Also, the number of hours and percentage of total study time are noted for each subject. An "Achievement Grade" is provided that is developed by dividing the number of criterion test items answered correctly during the report period by the total number given (anywhere from 3-10 tests given daily in each self-instructional subject). This percentage score is then converted to a letter grade by the grading formula shown below. "Final Composite Grade" results from averaging the Achievement Grade percentage and the PICA Behavior Rating Scale Grade percentage and matching this average to the grading formula. "Anecdotal Summary" presents a brief note by the PICA teaching staff on the student's progress and problems in each subject.

PICA LETTER GRADE/PERCENTAGE FORMULA

A+ = 98-100%
A = 95-97.9%
A- = 93-94.9%

B+ = 91-92.9%
B = 88-90.9%
B- = 86-87.9%

C+ = 83-85.9%
C = 80-82.9%
C- = 77-79.9%

D+ = 74-76.9%
D = 71-73.9%
D- = 68-70.9%
E = 00-67.9%

PICA PROJECT GRADE REPORT

NAME____________________ GRADE________ AGE________
SCHOOL____________________ COUNSELOR____________

GRADE REPORT COVERING PERIOD OF __________ THRU __________ (Inclusive)
DAYS PRESENT ______ DAYS ABSENT ______ (EXCUSED____ UNEXCUSED____) DAYS TARDY _____
TOTAL HOURS PICA PARTICIPATION _______ *(WHICH IS ______ % OF TOTAL HOURS AVAILABLE)
GROSS EARNINGS FOR PERIOD $ _______ TOTAL SAVED $ _______ TOTAL TAKE HOME $ _______

ACTUAL TOTAL TIME AND PERCENTAGE OF TIME SPENT IN PROJECT ACTIVITIES

ACTIVITY	TOTAL TIME*	% TIME
Self-Instructional Study		
Classroom Study		
Staff Discussion-Counseling		
Student-Chosen Leisure		
Staff-Forced "Time Out"		

* Time is expressed in Hours and Hundredths of Hours (e.g., 3:56 denotes 3 Hours and 56/100 of an Hour – which translates to 3 Hours and 34 Minutes.)

AVERAGE PICA BEHAVIOR RATING GRADE________ AVERAGE SCHOOL BEHAVIOR RATING GRADE________

GRADING SUMMARY FOR PICA SUBJECTS

	MATHEMATICS	ENGLISH LANGUAGE	INTERPERSONAL SKILLS
Nature of Study Program and Approx. Grade Level			
Hours of Instruction Spent in Subject Area			
% of Study Time Spent in Subject			
Achievement Grade			
FINAL COMPOSITE GRADE**			
Anecdotal Summary			

**Achievement Grade Combined with PICA Behavior Rating Grade

Addendum II

Selections from PICA "SER Handbook"

The following material has been selected from the "SER Handbook" that was distributed to the students, discussed, and "walked through" during the project orientation and testing period. The topics presented here are the major "rules" established by the project and serve to highlight material previously discussed in this report.

Description of Student Progress in PICA

There are four different "activity levels" in PICA. Each level permits the SER to do activities that are measured and accurately recorded. When the SER is doing work up to standards in an activity level, he will be promoted to the next higher level. The levels will be described in a separate orientation meeting and the standards for promotion will be presented.

Rules for Getting To and From PICA Daily

Each SER is expected to either meet the IBR bus at his school, or arrive at PICA at the time spelled out in the schedule sent to your home.

ROLLINGCREST STUDENTS:

Must check in at the office before boarding the bus, at 8:15 AM.
Must not engage in inappropriate behavior on the bus.
Must check in at the time clock, by 8:40 AM at PICA.
Must be ready to board the bus at about 11:35 AM.
Must check in at the school office when they return.
Must attend all afternoon classes at Rollingcrest.

MONTGOMERY HILLS STUDENTS:

Must report to PICA and check in at time clock by 8:40 AM.
Must report to school office when they return.
Must attend all afternoon classes at Montgomery Hills.

MacFARLAND STUDENTS:

Must meet bus in front of school at 8:00 AM.
Must not engage in inappropriate behavior on the bus.
Must check in at the time clock, by 8:40 AM in PICA.
Must be ready to board the bus at about 11:35 AM.
Must check in at school office when they return.
Must attend all afternoon classes at MacFarland.

EASTERN STUDENTS:

Must attend Homeroom class.
Must meet bus at University Blvd. entrance at 8:25 AM.
Must check in at time clock, by 8:40 AM in PICA.
Must be ready to board bus at about 11:35 AM.
Must check in at school office when they return.
Must attend all afternoon classes at Eastern.

SERs that arrive late must report to Mr. Filipczak before going to study. Students who are ill and cannot get to school and PICA must call BOTH the school and PICA by 8:45 AM. Repeated tardiness and absences can result in dismissal from your job.

Checking In and Out of PICA

1. Each student must punch his card in the time clock as he enters each AM.
2. Time cards will be checked for proper stamping each morning.
3. Failure to punch in will forfeit lounge privileges for the day.
4. Each student must punch out before leaving to return to school.
5. Failure to punch out will forfeit lounge privileges the next day.

Depositing Coats and Books Before Starting PICA

1. After punching in, you will have three minutes to deposit books, coats, etc., on the rack outside the lounge.
2. After three minutes a call will be made over the speaker for "all students to report to program checking station to pick up assigned study materials." Report immediately to the program checking station.
3. Students who do not report in the allowed time will be denied lounge privileges.

Homework and Rating Scale Procedures

1. Upon leaving PICA each day, each student will be given a homework report form and a School Rating Scale.
2. Both forms are to be carried to all afternoon school classes.
3. You must present Rating Scale to each teacher for his rating and signature.
4. On the homework form, you must write down the assigned homework and present it to each teacher for his signature.
5. Carry both forms home at the end of the school day.
6. Upon completing your assigned homework, your parents will sign the homework form.
7. Return both forms to PICA the following morning.
8. Failure to return each form or lack of signatures will result in fines. Properly carrying out these procedures will lead to a bonus.

Sequence of Programmed Instruction Activities

The following is a description of the procedures that will be followed in all work on programmed instructional materials.

1. Assign unit of program (based upon diagnostic testing or program progress).
2. Assign unit section (as beginning point of entire unit or as needed by IPI Math).
3. SER does section work in manner prescribed (in regular study booth, or in timed-study booth, or in automated learning center, or in Audio-response booth).

STUDENT MAY SEEK AND OBTAIN EXTRA HELP FOR STUDY WORK AT ANY TIME.

3A. An original assignment is done in the manner prescribed by the

program.
  - 3B. A staff member will monitor a first review of the original assignment.
  - 3C. The student works in an Audio-response booth for second review of original assignment.
  - 3D. At this point, an alternative assignment is made (actually cycling to 3A).

4. Check criterion items for study section (test, exercise, etc.). If criterion score is matched or exceeded, go directly to 5, below.
    - 4A. If criterion score is not matched, and this is original assignment of material, go to 3B, above.
    - 4B. If criterion score is not matched, and this is first review of material, go to 3C, above.
    - 4C. If criterion score is not matched, and this is second review of material, go to 3D, above.
    - 4D. If criterion score is not matched, and this is original study of alternate material, go to 3B, above. Follow alternate program sequence as if original.
5. When student's score matches criterion score for study section:
    - 5A. If unit is not complete, pay one-half money value, record remainder until unit test has been completed. If total unit has not been assigned, (e.g., IPI), pay full value. Record Work Unit score and money earned. Go to 2, above.
    - 5B. If unit is complete, pay one-half money value, record remainder until test has been completed. Record Work Unit score and money earned. Go to 6, below.
6. Assign unit test.
7. SER does unit test without assistance, according to specified procedure for test, and in specified media (paper-pencil, multi-choice system, etc.).
8. Check test items. If criterion score is matched or exceeded, go to 9, below.
    - 8A. Score is less than criterion, but within 5%. Teacher or Program Manager provides help through extra work and/or verbal review. Assign alternate test form and go on to 7, above.
    - 8B. Score is less than criterion by more than 5%. Teacher or Program Manager determines problem areas and assigns additional work through 3B, 3C, or 3D, whichever is appropriate.
9. When student's score matches criterion for test, record test work units, award test earnings from 5A and 5B, and record total money value. Go to 1, above.

Behavior in Study and Testing Booths

1. Upon receiving assigned work from the program checking station go immediately to the specified study or testing booth.
2. While in the booth, work continuously on the assigned material.
3. While in the booth, do not talk, sleep, smoke, eat, or engage in any other behavior that is incompatible with study.
4. Failure to meet the above requirements will result in penalties.

Time-Out Bench Activities

1. Free Choice
   - a. A student may elect to sit on the **bench** (the four chairs directly across from the program checking station) at any time, except during orientation testing and unit testing.
   - b. Student must give a reason for electing to sit on the bench.
   - c. Student may not talk, smoke, eat, disturb other students or staff, or engage in any disruptive behavior while on the bench.
   - d. Students may rest, sleep, sit quietly, relax, muse, think, or any other non-disturbing activity while on the bench.
   - e. Disturbances on the bench will be treated as any other "fineable" behavior in the study area.
2. Forced Choice

   A student may be forced to sit on the bench for any inappropriate behaviors in the study booth, test booth, or at the program checking station.

Lounge Procedures

1. A student is permitted to enter the **lounge** each day provided he has met the following requirements:

   - a. No major fine or forced placement on the time-out bench.
   - b. Has completed assigned units of P.I. during that day.
   - c. Has not exceeded the specified maximum number of minutes per day alloted for lounge use:

     (ungraded) = 10 minutes = :16 (pay also)
     (third class) = 12 minutes = :20 (pay also)
     (second class) = 18 minutes = :30 (pay also)
     (first class) = 12 minutes = :20 (free)

2. Student will carry a "SER Lounge Record" with him into the lounge each time. This record will be returned to the Program Checking Station upon leaving the lounge.
3. Violations of lounge rules will lead to exclusion from the lounge for a period of time determined by the Executive Board of PICA.
4. Lounge time not used on any one day may not be accumulated.

Student Use of Special Equipment

There are a number of special devices set up in PICA that SERs may be asked to use from time to time. Some of these are used for study activities and some are used for testing. The general rules that SERs must remember about these pieces of equipment are:

1) do not use any piece of special equipment except at the times you are told to use it. NO FOOLING AROUND WITH THE EQUIPMENT, IT COSTS A GREAT DEAL OF MONEY AND CAN BE DAMAGED IF FOOLED WITH!
2) If you are scheduled to use any piece of special equipment, a staff member will instruct you in how it is to be used. If the staff member forgets to tell you how to use some special device, PLEASE ASK HOW IT IS TO BE USED

BEFORE STARTING!

3) Any device that has a button to press, a counter that registers a score, or a light that flashes is one of these special pieces of equipment and all rules above apply to its use.

Further, no SER is permitted to handle "pink sheets" or "computer record forms." Also, SERs may not stamp any material with a small time clock. The large time clock at the entrance must be used, however, by students when they check in in the morning and leave for school.

Fines can be given to SERs that violate the rules above.

Criteria for Giving Fines and Bonuses

SERs can be given fines (deductions from pay or "time out" from study and other activities or loss of privileges or dismissal from the job) for serious infractions of project regulations. There are two kinds of fines that can be given: 1) major fines, and 2) minor fines. Major fines are given for the most serious infractions of project regulations. Each kind of fine is listed below with some examples of the behavior that the fine can be issued for and the limits of the fine for that kind of infraction.

Major Fines

(pay deductions may range between $.50 and $5.00)
(time-outs can range between 30 minutes and the "rest of the day")
(loss of privileges can be of any type)
(dismissal from job can result from repeated violations)

Some kinds of behaviors that can be given a Major Fine:

1. Fighting
2. Sexually or racially abusive language
3. Destruction of materials or property
4. Intentional injury of any person
5. Sleeping, except in lounge or free bench
6. Cheating or theft
7. Use of drugs or alcohol
8. Eating, drinking, or smoking in study area
9. Disruptions on bus

Minor Fines

(pay deductions may range between $.01 and $.49)
(time-outs may be 10 minutes)
(loss of privileges can be of any type)

Some kinds of behavior that can be given a Minor Fine:

1. Talking to or disrupting another student or staff member when working
2. Defacing study booths or other environmental spaces
3. Talking, singing, laughing or generally disturbances in study area
4. Wandering around and general horseplay
5. Keeping an untidy study booth
6. Walking into Program Checking Area or fooling with special equipment
7. Handling answer keys or other program checking materials
8. Having feet on desks or walls
9. Handling or fondling between students or staff
10. Removal of clothing or wearing clothes not acceptable in your school
11. Not doing programs in the manner prescribed
12. Wandering into an "out-of-bounds" area

Bonuses can be awarded for especially desirable behavior either while working on programs and tests or while engaging in some social behaviors. Bonuses will be limited to money that will be immediately listed on your "pink sheet" and paid on the same day.

Entering and Leaving Classes and Special Programs

Whenever an SER is scheduled to attend a class or a special program outside the main study area, he must report to the program checking station and check out to that class. When walking to the class, no horseplay or messing around will be tolerated.

All work done in the classes will be done either in the classroom or the laboratory.

SERs are expected to report to the program checking station immediately after the end of the class and check in.

Areas that are "Out-of-Bounds" to SERs

ONLY THREE AREAS are absolutely "out-of-bounds" to SERs: the animal experimental laboratory (next to the student-work laboratory), the animal holding room, and the audio-visual control room. You are permitted in these areas only with the expressed permission and when accompanied by a staff member.

Usually, SERs are not expected to be in a staff member's office. If you are asked to come to a staff office, however, you should report promptly.

Also, students will not generally be permitted to spend time out-of-doors either on their breaks or while waiting to depart.

Payroll Procedures and Regulations

After your first week in PICA (while you are doing the orientation testing) you will be paid each day, for the work you have done that day.

All data relating to your pay will be picked up by the Payroll Manager before you leave and your pay will be determined. The Payroll Manager will fill pay envelopes before you are to leave. These envelopes will be distributed to you before you depart for school.

All earnings will be calculated for your daily work, deductions will be made for fines or other infractions, bonuses will be added, and any savings withheld.

The PICA Savings Plan is set up so that in "Ungraded Activity Level" the SER will be saving 1/3 of his NET PAY, "Third Class" saves 1/4 of NET PAY, higher levels are not required to save any of the pay. These savings will be paid to the SER on June 11, 1970 (the last day of the program). If an SER drops out of the project, he forfeits his savings.

About the SERs Relationship to His School

Each SER is expected to maintain his performance in school while he is enrolled in PICA. All rules of the schools will be maintained while the student is in PICA. Students may be required to do homework, perform appropriately in classes, accept both awards for appropriate behavior and punishment for inappropriate behavior, and conform in all other ways to school policies.

If a student is suspended or dismissed from school, he will also be suspended or dismissed from PICA.

PICA will be keeping a record of student behavior in school through the PICA Behavior Rating Scale and Homework Forms.

About the SER's Relationship to His Family

Your parents will be enrolled in classes during PICA Project that are designed to help insure that all activities in the home are to the liking of all family members. The SER also will be responsible for holding up his "end of the bargain" by not creating extraordinary problems in the home. Both you and your parents will be cooperating in the Project to solve problems at home and parents will be your best allies for the next year (and longer). Problems in the home will also affect your activities in the Project, so do your best in cooperating with the activities and goals that you and your parents work out for family living.

Addendum III

Selections from the PICA "Parents Newsletter"

The following material is drawn verbatim from the "Parents Newsletter," which was distributed to all parents and cooperating school staff through most of the school year. Material was selected from the newsletter that has some bearing on project operations and that can describe a chronology of events as seen by the parents. Weekly student-based data has not been included both to conserve space and because such data proves repetitious. Where no feature articles were written in a newsletter, a notation is made in the chronology.

#1 - OCTOBER 20, 1969

A Student's Day at PICA

The day begins when the PICA bus arrives at IBR, at 8:45 AM. Students put away coats and books and relax in the lounge for a few minutes before work begins.

The work day starts when the students are called to the Program Checking Station (PCS) and given their first assignment. Each student goes to his own study booth and begins work. The assignments in math and English are self-instructional materials prepared for each student, based on his skills and need. If the student has a question or problem, he comes to the PCS for help, then returns to his study booth.

When the assignment is completed, the student brings it to the PCS for checking. He cannot begin another unit until the one on which he is working is completed with a score of 90% or better. The score is determined at the PCS, where the student learns which answers are incorrect. He returns to his study booth to correct his assignment, after special help from the teacher. When the assignment is completed and 90% correct, the student's earnings for the work are recorded and he proceeds to the next assignment.

Mid-morning, about 10:00 AM, the student changes subjects, either from English to math or the reverse. He continues to work through assignments until the morning ends, and the PICA bus leaves at 11:45.

Student Performance at PICA

As you can see, the PICA students work hard and diligently during their morning at IBR. A progress report for the individual student is given on the next page and will give you an indication of your son's or daughter's achievement thus far.

The grades indicated have been sent to the student's respective school and will be recorded on his record. The grade is based on the number of assignments attempted and the percentage correct of the assignments completed. A grade is given for each subject: math and English.

Student behavior is rated on a scale from 1 to 5. Five represents excellent behavior during the day's working period. The figure given is the average of the behavior ratings for the week.

Percentage of assignments completed determines the total funds earned. One-third of that amount is put into savings. Students are paid at the end of each day; the figure given represents the take home pay for the week. Also shown is the amount the student has saved since September 29, when the mandatory savings program began. These may not be withdrawn until June 11, the end of the year.

Further Information Regarding Student Performance

PICA's emphasis is on the student and his ability to better his own performance. There is no comparison made between one student and another student. Rather, the comparison is between one day's work and the next day's work for each student.

PAY - The pay for each assignment is based on IBR's evaluation of the amount of work necessary to complete the assignment and the difficulty level of the problems, The percentage of work completed correctly determines the student's pay. For example, if a student finished 100% of the assignment correctly, he is paid 100% of the evaluation for that assignment. If he completes 95% correctly, he is paid 95%. He must complete 90% correctly in order to receive pay.

LOUNGE TIME - Each student is allowed 10 minutes during the morning work period for "Lounge Time." This break may be taken any time after he has completed his first assignment. Many students break up the 10 minutes into several parts, taking a few minutes after each assignment is done. Students pay for lounge time. At PICA the hour is divided into 100 units (10 minutes = 16/100 of an hour, or a total of $.16 per day for his "lounge time."

In the Lounge, they may drink cokes, eat candy, sit, read, talk with other students, or listen to the radio.

#2 - OCTOBER 29, 1969

Parents Are PICA Students Too!

The parents of the PICA students are hard at work. They meet weekly to discuss problems that arise between all parents and teenagers and are learning ways to resolve these problems.

The parents attend two courses. On Wednesday evenings, every other week, with Mr. Herman Gewisgold, psychotherapist and staff member of PICA, parents take in-depth looks at a particular problem they may have with their teenager.

The problems selected for analysis and discussion were chosen by the parents at their first meeting on October 3. A total of 18 topics were agreed upon for discussion as soon as possible, with another 24 topics reserved for later on during the course.

Using films, group discussions, and lectures, the parents have tackled the problem of managing money in the home, helping their teenager express his feelings, and of learning how to fight fairly with him. The discussions are stimulating and lively. Most parents participate actively and express their views honestly and clearly.

In alternate weeks, the parents meet on Friday mornings with Dr. Donald Green, a research psychologist at PICA. The objectives of this course are to teach parents the principles and techniques of behavior modification. These procedures, when learned, will be used by the parents to manage, modify, and/or maintain the behavior of their teenager in the home. Throughout this course, parents are helping PICA continue and expand its work with the students during the time they are at home.

At present, parents are getting used to being students again, using programmed textbooks, taking notes, and taking examinations. In addition, they are helping to shape and guide their own courses through comments and criticisms on feedback sheets to the course leaders.

Important Note

Plans for getting your child to PICA each morning were carefully worked out. When the routine established is not followed, our bus schecule gets all fouled up, and those students who are required to check in at school and do not are often marked as absent.

Please help us by NOT transporting your child to PICA on the Friday mornings when you come to class at IBR. Thanks.

PICA Staff Also Meets With School Teachers and Counselors

Since PICA started, on September 15, PICA staff members have been meeting with teachers and counselors from each school represented, to ensure that each school staff member has had an opportunity to discuss questions about each student with a PICA staff member. Also, these meetings are designed to clear the way for the schools and PICA to provide each other with information about the students' progress in school and PICA. This information will be recorded through the SCHOOL/PICA BEHAVIOR RATING SCALE AND HOMEWORK FORM which the students will start to carry with them some time during the next few weeks. Both school staff and parents will work with PICA in keeping the records on this form up-to-date and accurate. This form is very important to the PICA Project, and we will all work together to make sure everyone learns as much from it as possible.

We are also in daily contact with the schools about each student's behavior and attendance. These forms will provide the information that PICA requires and will cut down the frequency of these calls. Contact with the schools about each student's progress and problems will continue, however, as they are an important means of handling critical topics.

#3 - NOVEMBER 6, 1969

Speaking Out: PICA Students--On PICA and Regular Schools

This reporter spent some time Monday in the PICA lounge asking students, during their breaks, how they felt about PICA. They talked about the particular things they liked and those they didn't like, and compared PICA with their regular schools.

Most students gave PICA the stamp of approval: learning more, getting help when you need it, nice people, and earning money. One student simply said: "I like it," and explained "I pay attention more, and learn more here."

Another student particularly liked finding out right away if his work was correct, and getting help whenever he needed it.

Specific good points about PICA, the students felt, were 1) getting paid; 2) learning more than in regular school; 3) learning more easily than in regular school; 4) working on your own and trying to better your own average; and 5) having to do the work until you got it right. Point 5 was, they felt, very different from regular school. "There, if you get an answer wrong, the teacher marks it down (You get an E) and that's the end of it."

A Montgomery County student said the work was fun to do at PICA, work he wanted to do. At regular school, he said, work is not fun, you don't want to do it, but you have to do it because you have no choice. Several students agreed with him. One student from DC felt an important reason for wanting to do the work at PICA was because "They drop you down in work to find your particular problem; you work on it until it is solved; then you work up." In regular school, he said, the whole class works on the same assignment.

Criticism from one student noted that the most annoying thing about PICA is the "machinery (automatic testing equipment) breaking down" which cuts into his working and earning time.

Some students found comparisons easy to make between regular school and PICA. One Prince Georges County student summed them up when he said "If regular school were like PICA, there would be no skipping and everyone would graduate." (This is not borne out, by the way, by PICA attendance figures). This PG student feels that if he were not in PICA, he would quit school when he turns 16. Now, he says he plans to stay in school, go on to junior college and a career in electronics.

Another student said he felt one problem teachers had in regular schools was the large number of children, but his main concern was that teachers in regular school have a "bad attitude." They use "heavy voices" to make demands of students, instead of asking them nicely. If you say you don't understand, many teachers will say "You should have been listening." A different student said it was a problem to ask for help in regular school, because it meant having to stay after school, asking in the midst of a large group, or being made fun of if you went to the front of the room to get a teacher's help. These two students agreed that at PICA you just have to ask if you need help, and if you don't understand, the teacher will explain the whole thing again.

Finally, one student particularly likes working with Dr. Green to ready the animal laboratory for students' use later in the year. He enjoys the work with the equipment and the pigeons, knowing how to handle them, tag them, and record their activities.

Speaking Out

The "Speaking Out" column is hopefully the first in a series to be published in the Newsletter. The editor would appreciate receipt of comments from both parents and school personnel about any PICA-related subject.

The editor will be in touch with parents during breaks in parent meetings and would like to have comments from school personnel mailed to:

Miss Pat Patterson
PICA Project
2401 Linden Lane
Silver Spring, Maryland 20910

A Note of Interest:

On Monday, November 10th, the PICA Project will be visited by the bookmobile.

Each PICA Student Educational Researcher will be able to pick out eight paperbacks of interest to him or her which will then be placed in the PICA Paperback Library. These books can be borrowed at any time. It is only asked that you replace the one you borrow each time you select a book.

We are eagerly looking forward to replenishing our paperback library with selections made by the PICA students.

#4 - NOVEMBER 11, 1969

No feature articles written.

#5 - NOVEMBER 17, 1969

PICA Students: Congratulations!

This week, PICA students began two new classes. These classes signify that the students have been promoted for the first time in the PICA program.

The students are to be commended because each had to meet a rigorous series of prerequisites before he or she could be eligible for entrance into classes.

The prerequisites, determined by the PICA staff, included the following:

1. Each student must have completed at least six weeks in PICA's planned

activities.

2. Each student must have averaged 50% for English and math study time over a period of four weeks, at 90% or better achievement average.

3. Each student must have spent 15% or less time in the lounge, bathroom, and Free Bench activities for a period of four weeks.

4. Each student must have an average 3.5 behavior rating over the last two weeks.

The promotions provide some new opportunities to the students. One of these opportunities is to begin two new classes at PICA.

One class is "Behavioral Issues" taught by Dr. Green. Each student will meet in this class once a week. The class will teach the "Fundamentals of Behavior Analysis" in a laboratory setting. Students will learn the basic terminology and procedures for systematically analyzing behavior in both animals and humans. Each student has a white laboratory rat which they will care for. With the rat as subject, they will conduct basic experiments in behavior.

The other class is "Design Science," taught by Mr. Filipczak. Each student will meet in this class once a week. Using a modified laboratory setting, the course will train students to analyze environmental and visual design problems, propose and demonstrate solutions for these problems, and present these solutions for student and staff critique. During training in basic processes, the students will work on two problems of their own specification and design, and one problem designed by the instructor. The latter problem will concern what must be done to plan for saving lives after a "natural disaster."

Speaking Out

In our Newsletter of November 6, we asked parents and school personnel to send us their comments about any PICA-related subject for inclusion in our "Speaking Out" column. We are looking forward to hearing from you. Send comments to:

Miss Pat Patterson
PICA Project
2401 Linden Lane
Silver Spring, Maryland 20910

Future newsletters will contain more information about the fun and learning in these two classes, as well as information about the other opportunities PICA students gained with their promotion.

#6 - NOVEMBER 24, 1969

No feature articles written.

# 7 - DECEMBER 1, 1969

"School/PICA Behavior Rating Scale and Homework Form" Starts Monday, Dec. 8

Beginning Monday, December 8, each PICA student will carry a rating scale and homework form with him each day. These forms will be a means for all school teachers to rate the behavior of each student daily and will assist in recording homework assignments given in school classes.

Parents will be responsible for looking at these sheets every evening to insure that they understand what their son or daughter has done in school that day and is required to do for the next day. The parents must sign to validate that they have seen each item on the form. This will require three (3) signatures on each form, each day. Parents must also indicate on the form whether the homework assigned in class was completed at home that night.

These forms will be returned to PICA each morning by the PICA student and all completed homework assignments will be checked for authenticity. The forms are important to students for two reasons: (1) the form provides a simple, but accurate record of behavior in school and (2) students will receive small bonuses if the form is completed properly and fines if not completed or not returned.

Parents, please keep your eyes open for these forms. We need your cooperation to make the form work.

The Video Tape Recorder - A New Tool for PICA Parents

PICA parents are using a new tool--the video tape recorder--in their learning.

In Dr. Green's course, which meets every Friday morning, parents are learning how to observe and record behavior. Using the video tape recorder, they are developing the difficult skill of accurately counting specific behaviors. Observing and recording behavior represents the second step in their course in behavior modification and a basic tool they will use in management training programs in their own homes.

Several parents have participated in role-playing situations, taking both the part of the parents and the teenager. Their skillful acting has produced many insights into the problems of handling anger and developing a sense of responsibility. The role-play on responsibility was recorded on video-tape; the parents will use it as the basis for discussion at their next Wednesday evening meeting.

Note to Parents (Teenagers May Listen!)

I appreciated your completing our questionnaire requesting examples of ways in which you felt your child had assumed responsibility lately and ways you wished he would be more responsible.

Many parents expressed appreciation for their children's taking better care of their rooms, for arising in the morning without having to be called, and for getting home in the evenings at reasonable hours.

One parent was especially pleased that her son had shown respect for the property of another member of his family.

Parents, in general, agreed that improvement is still needed in the above areas as well as in others, such as, in assuming responsibility for household chores, assuming responsibility for his own property and/or his own self, keeping parents informed of his whereabouts when away from home, and finishing a job once started.

Thank you again for responding so well to my letter. I thought I would like to share with you these interesting comments.

Pat Patterson

#8 - DECEMBER 8, 1969

Behavioral Science

The PICA students are becoming laboratory researchers. In Dr. Green's Behavioral Science class, they are performing simple experiments on the principle of reinforcement and extinction. Using laboratory animals, small white rats, the students are shaping the rats to press a metal bar, using small food pellets as reinforcers.

The students are observing how the rate of this bar-pressing response changes as a function of following it with food pellets. In the second phase of this experiment, the students will observe how the bar-pressing rate changes again when no food follows the rat's response. During both phases of the experiment, the students keep a minute-by-minute record of the bar-pressing response.

This experiment is the first in a series of simple behavioral experiments, designed to expose students to the major controlling behavioral variables. The experiments are the first kind of activity planned for the students in the Behavioral Science class.

In a second kind of activity, the students will use principles learned in the lab to analyze social situations. Using their own interactions with friends, parents, and teachers, the students will apply the variables learned in the laboratory. They will be required to keep a record of their own behavior in their various social interactions, which they will then use in attempting to change their own behavior in these same social situations.

PICA students attend the Behavioral Science course, as well as the Design Science course described on Page Two, once each week.

The objectives specified for these two courses include not only learning the subject matter but also the behaviors associated with a laboratory situation.

The response from the PICA students has been enthusiastic and the participation has been lively.

Design Science

The first two weeks of the Design Science class, taught by Mr. Filipczak, revealed that most students have a basic background in--and are quite capable of learning--the terminology and techniques associated with environmental and visual design. The average grade on tests given in these first two sessions has been 92%, or a letter grade of B+.

The first three weeks of Design Science treat the topics of "logic" as applied to verbal, visual, and physical phenomena. Each of these sessions includes practical problem-solving practice using procedures of logic to complete two- and three-dimensional exercises. The students have constructed both games and models to represent their solutions to these problems.

Future sessions will concern themselves with problems of linear, square, angular, and scale measurement, and the students will define, restructure, and effect solutions to problems of their own choice in both physical and visual media. Later sessions tackle both finished visual design work and planning for maintaining an ecological system to support life.

#9 - DECEMBER 15, 1969

Just A Reminder

The holiday season is here again. Vacation for PICA students begins on Wednesday, December 24, and continues through Sunday, January 4, 1970. PICA classes resume on Monday, January 5th.

The parents meeting this Friday morning, December 19th, will be the final meeting of 1969. The next parents meeting will be on Wednesday evening, January 7th. Please keep these dates in mind.

HAPPY HOLIDAYS!

#10 - DECEMBER 22, 1969

Please Note:

The first Parents' Meeting of 1970 will be on Friday morning, January 9th, not on Wednesday evening, January 7th as indicated in the last newsletter. The next two meetings will be held on Wednesday evenings and the final meeting for January will be on a Friday morning. (See calendar on page 2).

Attention PICA Parents:

Attached is a calendar of the PICA Parents' Meetings in 1970. All the meeting dates are circled. We suggest you post this in a prominent spot--the refrigerator door (?!)--and refer to it often.

#11 - DECEMBER 29, 1969

Attention PICA Parents!

Attached you will find a calendar of Parents' Meetings for the month of January. For your convenience and easy referral, a calendar noting the meeting dates for the upcoming month will be included with the final PICA Parents' Newsletter each month. We suggest you post this calendar in a place where you can refer to it easily and often.

HAPPY NEW YEAR!

Tis The Season To Be Jolly

In the true holiday partying spirit, PICA students and staff members had a rollicking time at the PICA Christmas Party on the morning of December 23rd. Goodies included apple cider, donuts, and presents and loads of confetti--no one was spared where confetti throwing was concerned and as the saying goes: "A good time was had by all!"

#12 - JANUARY 5, 1970

Food For Thought - for PICA Parents:

The next PICA Parents Meeting on the morning of January 9th, will deal with practice in contingency analysis and analysis of interaction. A film entitled "Moment of Decision" will be presented and a discussion period will follow the film. The discussion will focus upon identifying interactions (between parent and teenager and between teenager and friends), analyzing interactions and analyzing the consequences of interactions. We look forward to seeing all PICA Parents at the next meeting.

#13 - JANUARY 13, 1970

Parents are Actors

One technique used to convey information to Parents at meetings is the skit, or short play. Parents volunteer to play the roles of mother, father, son, or daughter in a ten or fifteen minute "playette" concerning the topic to be discussed during the meeting. The purpose of the skit is to allow parents to interact with each other as if they were in a real home situation, so that the behaviors each actor displays can be observed, discussed, and analyzed. One particularly interesting and beneficial aspect of the skit is that parents who assume the role of a son or daughter in the skit can actually gain insight into the point of view a child has in dealing with his parents. The skit is an effective learning device, both for those participating in it and thos observing it.

A Reminder About Snow Days

Some question remains about the procedure PICA students and parents should follow when school is called off or delayed because of snow. We suggest, first of all, that if the evening weather report calls for possible snow the following day, that parents and students be ready to turn on their radios or TV's early in the morning, tuned to WTOP or your favorite station, to determine what the school situation is. If schools in your area are closed, PICA students from that area are not required to attend PICA that day, and the bus will not pick up those students. However, if parents wish to bring their child to PICA, we will be happy to see anyone who braves the snow. If school is delayed in your area, the PICA bus will arrive at your child's school as many minutes late as school has been delayed, and students are expected to attend PICA at this later time. For example, if your child's school opening is delayed one hour in the morning, the bus will arrive to pick up those students one hour later than its usual arrival time. If there are any questions about procedure on snowy mornings which are not answered by radio announcements, students and parents may call the PICA office (587-4044) after 8:30 AM.

#14 - JANUARY 20, 1970

An Invitation--

The editor would like to reiterate the invitation to parents, teachers, and all who have contact with the PICA Project to submit any items of interest related to PICA for inclusion in the Speaking Out column. Please send comments to:

Janet Marmelstein
IBR Educational Facility
2401 Linden Lane
Silver Spring, Maryland 20910

I look forward to hearing from you.

To Err Is Human:

Those responsible for getting the Newsletter out in good order were hindered last week by illness in the ranks and as a result, several somewhat glaring errors found their way to the printed page. The editor expresses her regrets for this occurrence and assures readers that the quality of the Newsletter will improve along these lines in the future!

#15 - JANUARY 27, 1970

For PICA Parents

This is the final newsletter for the month of January. Accordingly, please find attached the calendar of meetings scheduled for February. Again, we suggest that you place this calendar in a prominent place and refer to it often.

Design and Modification Programs

The program of Parents' Meetings conducted on alternate Friday mornings by Dr. Donald Green is now entering its fourth and final stage. Three previous stages concerning concepts of contingency management, behavior observation and recording, and contingency analysis preceeded and have been building towards this fourth stage, which deals with Design and Modification Programs. More specifically, this stage is structured to bring into actual use the principles introduced and discussed in the initial three stages. Parents will design a contingency management program to be implemented in the home, and the progress of the parents' modification programs will be assessed and discussed during the upcoming Friday morning classes.

#16 - FEBRUARY 2, 1970

Activity Level Two Begins

Students at PICA will begin Activity Level Two this week. This entails several procedural changes, among which are a decrease in time spent on Programmed Instruction (P.I. time includes work on the academic subjects of English and math), the inauguration of a new class entitled "Contemporary Issues" to be taught by Mr. Cohen, several changes in the structure of Leisure Time, the initiation of some new research procedures for PI work and an opportunity for PICA students to choose an "Individual Tutoring Activity" for the remainder of the year. Also, some students will be entering the Second Class Level on a conditional basis, contingent upon completion of certain requirements.

Mr. Cohen's class on "Contemporary Issues" will cover a wide range of topics, both academic and social. The major emphasis will be on training students in the behaviors appropriate to "in-class" activities, especially those related to their academic courses.

The "Individual Tutoring Activity" which PICA students will choose during this Activity Level will provide for each student to spend a specified amount of time working with a PICA staff member on a subject (not necessarily academic) which particularly interests the student.

#17 - FEBRUARY 10, 1970

A Reminder-for PICA Parents

This is to remind all PICA parents who received Behavior Form Sheets at Dr. Green's last Friday morning session to return the completed form to Dr. Green at the Friday morning session on February 13th. PLEASE DON'T FORGET! THESE SHEETS ARE VERY IMPORTANT!

Speaking Out: PICA Students on Their Plans for the Money They Have Saved at PICA

An important aspect of the program for students in PICA has been the saving of a certain portion of their PICA earnings.

During the first quarter of the program, all students were required to save one-third of their total earnings. During the second quarter, students were required to save one-fourth of their earnings. At the present time, PICA has entered its third quarter and students are saving on a voluntary basis.

Approximately 25% of total student earnings is being saved at this time (which indicates that students are saving as much on their own as they did during enforced savings periods). This reporter talked with PICA students during their lounge breaks and asked what plans they have for the money they have saved at PICA.

Two students were not yet clear as to what they would do with their money (which will be released to them on or shortly after their last day in PICA. The other students had either made a specific decision or had at least given the subject some thought. Among their comments were the following:

> One student has decided to put his savings towards the purchase of a new mini-bike; two other students are planning to use their savings to help buy a used car; still another wants to put his money into car parts.
>
> One young lady gleefully admitted that she is going to "blow it on anything I want to do"; one young man has decided to put his savings towards a vacation in Ocean City.
>
> Three students have decided to use their savings to buy clothes. One of these specified that she wants to buy summer clothes to wear to work. Another commented that he wants to buy some clothes, but that his first responsibility is to "pay back my brothers the money I owe them!"

It seems likely that one way or another, most PICA students will find a satisfactory way to use their PICA savings (probably with some advice from their parents and the PICA staff).

#18 - FEBRUARY 17, 1970

Announcement:

No PICA on February 23rd, 1970 --George Washington's Birthday holiday.

#19 - FEBRUARY 24, 1970

For PICA Parents

This is the final newsletter for the month of February. Please find attached the calendar of meetings for the month of March. Please note that there will be NO Parents Meeting on Good Friday, March 27, 1970.

PICA Parents are Behavior Modifiers

As stage four of Dr. Donald Green's program in behavior modification techniques for parents progresses, a word about the parents' role as behavior observers and data recorders is appropriate.

As has been discussed in a previous newsletter, PICA parents are now beginning work on a program of behavior modification with their children who attend PICA. As part of the implementation of this program, parents will be observing and recording their child's behavior so that they can have a visual record of the occurrence of the behavior they wish to modify, and can, therefore, function as more effective behavior modifiers.

The data which the parents collect will also serve to assist the PICA staff in its evaluation of the parents' modification programs. The role of the parents as behavior observers and recorders is the key factor in this stage of Dr. Green's program for PICA parents.

#20 - MARCH 2, 1970

PICA Students Meet with Mr. Cohen in "The Contemporary Classroom"

PICA students are now meeting once a week with Mr. Cohen in a class entitled "The Contemporary Classroom."

The purpose of the class is to make students more effective in classroom situations by teaching them the skills which are important and useful for everyday schoolwork.

Through participation in the class, PICA students should increase (if carryover is at all effective) such necessary school and home study behaviors as:

- Notetaking (from lectures, films, the blackboard, discussions, and tests);
- Assignment reading (from fictitious, non-fictitious, technical and historical works);
- Report writing (in the humanities and the social sciences, as well as technical report writing);
- Class discussion;
- Answering of questions;
- Maintaining attention span in difficult or monotonous material;
- Recitation of material;
- Test taking (multiple-choice, fill-in-the-blanks, matching, and essay questions);
- Remembering important lecture points;
- Reviewing techniques in a test or report;
- Self-discipline in home study;
- Procedures for positive classroom behavior;
- Self control of behavior in class.

Because the purpose of the class is to teach methods and procedures, the concentration will not be on any one academic subject, but will, instead, vary from subject to subject as the method or procedure to be taught requires.

The teaching techniques that PICA students will learn to work under will approximate those they now encounter in their regular school classrooms.

The academic subjects which will be covered in the class fall under standard categories such as those found in English classes, math classes, and history, science, social studies and language classes.

Students earn points (to be converted into money) for effective class participation including proper classroom behavior, test taking, turning in tests taken in class. They lose points if they exhibit any of the behaviors which normally anger a classroom teacher, such as talking out of turn, chewing gum, or not paying attention. The points are tallied on a counter placed in front of the room, within the view of all students. Directly under the counter are twelve lights, one per student, which light up if the particular student is not participating properly and indicate to that student that he is losing points.

With the use of the techniques described above, Mr. Cohen hopes to help PICA students help themselves to "make it" in their regular school classrooms.

#21 - MARCH 10, 1970

For Your Easter Holiday Planning...

Easter time is fast approaching, and PICA students can look forward to a holiday from regular school and from PICA. The length of the Easter vacation varies among school systems in Montgomery and Prince Georges Counties and the District of Columbia, but please keep in mind that the Easter break at PICA includes Good Friday, March 27th, Easter Monday, March 30th, and Tuesday, March 31st, ONLY, and that, regardless of length of the holiday from regular school, PICA students are expected to resume attending PICA on Wednesday, April 1, 1970.

#22 - MARCH 17, 1970

Reminder:

No Parents' Meeting on Good Friday, March 27, 1970.

Summer Employment

During the past few months, the PICA staff has been in contact with some of the agencies that are responsible for finding employment for youths during the summer months. Progress has been good, and we feel that through the efforts of the students, their parents, and the PICA staff, all PICA students can have a job waiting for them (if they want one) shortly after the school ends in June. Some of the prospective employers who have given us some encouragement are High's Dairy Stores, Neighborhood Youth Services, as well as the employment services of Montgomery County, Prince Georges County and the District of Columbia. Some of the agencies or employers will send applications directly to the PICA students' homes, but we have also obtained application forms for those agencies that will not. We will be letting you know in the future newsletters what progress we have made. Thank you for your help.

#23 - MARCH 23, 1970

PLEASE KEEP IN MIND: No PICA Parents' Meeting on Good Friday, March 27.

Attention Parents of Students Enrolled in PICA:

1) MacFarland Junior High
2) Eastern Junior High
3) Montgomery Hills Junior High

Because Spring Vacation dates for MacFarland, Eastern, and Montgomery Hills are not the same as the Spring Vacation dates for PICA, we must announce some changes in the daily routine! PICA WILL BE CLOSED ON MARCH 27, 30, and 31 ONLY! All other days it will be running and students must be here. Because school buses will not run during the days the schools are closed, we have made arrangements to pick up PICA students at the following locations, dates, and times. The students mentioned below will be dropped off close to their homes after their morning sessions in PICA. All Rollingcrest Junior High Students have Spring Vacation on the same dates as PICA's Spring Vacation, and no adjustment in their schedules is necessary. They will be picked up and dropped off at school at the regular times.

MacFarland Junior High

All MacFarland students will be picked up in front of MacFarland Junior High at 8:15 AM on April 1, 2, and 3 by Mr. Fennell.

Eastern Junior High

D S will be picked up at the corner of Glenville Avenue and Piney Branch Road at 8:20 AM on April 1, 2, and 3 by Mrs. Bishop.

C C will be picked up at the corner of Bristol Avenue and Sligo Creek Parkway at 8:30 AM on April 1, 2, and 3 by Mrs. Bishop.

Montgomery Hills Junior High

M R will be picked up at the corner of Rosemary Hills Drive and East-West Highway at 8:20 AM on April 1, 2, and 3 by Mrs. Denenberg.

M D will be picked up at the corner of Dexter Avenue and Douglas Avenue at 8:30 AM on April 1, 2, and 3 by Mr. Filipczak.

#24 - MARCH 31, 1970

No feature articles written.

#25 - APRIL 7, 1970

Upcoming PICA Parents' Meetings

With the coming of spring, the program of PICA Parents Meetings swings towards its conclusion on June 19th. The Friday morning sessions are now concentrating on developing programs for behavioral change for parents to employ at home. The Wednesday evening sessions, which have thus far covered such issues of concern as how to fight fairly with teenagers, how to develop responsibility in teenagers, how friends and groups influence teenagers, the drug issue, and handling angry feelings, will concentrate in the upcoming sessions on topics concerning vocational guidance, the problems of runaways, teenage rebellion, gaining independence, and making decisions. We hope to see one and all at the upcoming PICA Parents' Meetings!

#26 - APRIL 14, 1970

PICA Students Promoted to Class Level One

All PICA students except one have now been promoted to class Level One. The promotion marks the end of several old procedures and the beginning of several new ones. Among those procedures that have now been completed are the Behavior Modification and Design Science classes taught by Dr. Green and Mr. Filipczak, respectively. Mr. Cohen's "Contemporary Classroom" will continue and one further class taught by Dr. Joseph Slavin and entitled "Interpersonal Skills" will begin during the first class level. Dr. Slavin's class will concentrate on behavioral problem solving, especially where family relationships are concerned, but also as related to problems students encounter with teachers and school personnel. The procedures to be emphasized in the "Interpersonal Skills" class are designed to shape new behaviors in the students which will aid them first in determining where discrepancies exist between the goals they set for themselves and the goals parents and teachers set for them, and second, where their current repertoire of social behavior falls short in dealing with these discrepancies.

Another procedural change will involve new methods for dealing with the PICA Behavior Rating Scale and Homework Form (green sheets). Each student will now begin his own individual program to insure that the data on his green sheet is reliable and that the green sheet is returned consistently to the PICA staff.

One further change in procedure concerns a new study (by the PICA staff) regarding the consequences for errors students make in their programmed instructional work. This study is designed to determine what ways there are to insure that PICA students spend their study time as efficiently as possible.

A special feature of class level one is the opportunity for PICA students to begin the individual tutoring activities which their promotion has enabled them to select. These activities span categories that range from vocational skills such as typing and basic electricity to recreational skills such as scale model building and basic guitar. Each student who has chosen an activity which should prove to be an enjoyable and beneficial experience for both PICA students and PICA staff, for it will provide students with the chance to learn a new skill and will provide students and staff members the opportunity to get to know each other on a new and less formal basis.

#27 - APRIL 21, 1970

More About: Summer Employment

At the Parents' Session on April 15, several parents had questions about the role the PICA staff is playing in securing summer jobs for PICA students. To clear up any confusion, the policy of the PICA staff on this matter is as follows:

1. No PICA student has been told that he can absolutely rely upon PICA to find him a summer job;
2. Students have been told that the PICA staff will help find summer jobs if students fulfill the following requirements:
    - A) that they display appropriate behaviors by filling out necessary forms and going themselves, when necessary, to employment agencies;
    - B) that they improve their school grades during the last marking period (the greater the number of grades improved, and the degree to which these grades are improved will determine how far up the list the student will be of those who can receive help from the PICA staff).

The PICA staff would like to emphasize that students should be encouraged to find jobs for themselves, and that parents should help as much as they wish without actually securing the job for the student. The main reason that the PICA staff is helping students in their search for summer employment is to teach the procedures one has to know to go job hunting. Therefore, those students who show their willingness to find jobs by fulfilling the requirements stated above, will be the ones who receive the most help from PICA.

There are several things that the PICA staff would like to point out. First, the younger a student is, the more difficulty he is likely to have finding a job. Second, the District of Columbia has more summer job programs available for students (from D.C. only) than do Prince Georges or Montgomery Counties. Third, employers tend to look upon PICA students with favor because of the recommendations given by the staff, and fourth, many students apply for summer jobs early, and PICA students should, also.

#28 - APRIL 28, 1970

No Feature articles written.

#29 - MAY 5, 1970

Just A Reminder

Please keep in mind that all remaining PICA Parents' Meetings will be held on Wednesday evenings, at 8:00 PM.

For the May 13th Parents' Meeting

Once again, please remember that the Parents' Session on Wednesday, May 13, will take place at the studios of television station WRC-TV which is located at 4001 Nebraska Avenue, N.W., Washington, D.C. The meeting will begin at 8:00 PM, so we urge all parents to arrange to arrive at the station by 7:45 PM. The station is located halfway between Wisconsin and Massachusetts Avenues on Nebraska Avenue, and it is on the left hand side as you drive towards Massachusetts Avenue. There is a stone marker carved with the call letters WRC that identifies the station's parking lot from Nebraska Avenue. When you arrive, park anywhere on the lot and enter the station's lobby, where you will be met by Miss Marmelstein and Mr. Gewisgold and by a guide from the TV studios. We would like parents to arrive by 7:45 so that we can be escorted in a group to the conference room where the meeting will take place. More specific individual instructions as to how to reach Nebraska Avenue will be included in a note to parents to be sent later this week. If you have any questions or problems, please contact Miss Marmelstein at 587-4044.

#30 - MAY 12, 1970

Note to Parents

Beginning the week of May 18, PICA students will begin bringing home tape recorders for the first time in order to fulfill assignments they have received in Dr. Slavin's Interpersonal Skills Class. We ask parents to please be as cooperative as possible in helping their children complete these assignments.

#31 - MAY 18, 1970

A Note to Parents About the May 20th Meeting...

The Parents Meeting scheduled for this Wednesday evening, May 20th, will include a special discussion with PICA Coordinator, James Filipczak, focusing on the current status of students' summer jobs and plans for PICA's continued contact with students and parents during the summer and in upcoming years. We wish to emphasize that the June 11th termination date for active participation in the PICA project does not mean that contact with PICA students and parents will end. In fact, contact, especially in the home, will continue and increase for at least the next year and possibly longer.

In addition, we want to encourage all PICA parents to come to the May 20th session with a firm notion of some specific behavior in their children which they feel is still in need of change.

For Your Social Calendar:

Please circle Wednesday evening, June 10th, on your calendar as a reminder that this, the final PICA Parents' Meeting, will be a special one! Keep in mind that dinner is at 7:00 PM, one hour earlier than the regular meeting time. And remember to bring your appetites!

#32 - MAY 26, 1970

Reminder to Parents...and Other News

The final day for student attendance at PICA will be Thursday, June 11. This means that summer vacation for all PICA students (except those from Montgomery County) will begin on Friday, June 12. Students from Montgomery County will stop coming to PICA after June 11, but will continue to attend their regular school classes in the afternoon until school closes on June 18. The PICA staff will be in contact with the parents of Montgomery County students to discuss the problems involved in transportation to regular school during that final week.

In addition, we would like to note once again that PICA students will receive the money they have been saving at PICA on about June 11. They money will be transferred to students either in cash or by check; because there can be possible difficulty for students in either cashing checks or carrying large sums of money, we wish to hear from parents as to which of these two options they feel is better. Also, if parents have any ideas as to how their children should use the money they have saved at PICA, we urge parents to talk this over with their children now, so that something can be decided when the money arrives on June 11.

Year end testing began at PICA on May 25, and will continue until about June 11.

A Special Note:

Mr. Filipczak has not heard as yet from any parents as to the establishment or renewal of behavior modification programs in the home. He asks that parents please come to the June 3rd Parents' Meeting with a good idea of what their continued, revitalized or new programs will be.

#33 - JUNE 2, 1970

Please Keep in Mind...

...that Mr. Filipczak has requested parents to come to the June 3rd meeting with a good idea as to the kind of new or continuing program for behavioral change which they want to carry on in their homes with their children who attend PICA.

Invitations to the dinner party and movie to be held on Wednesday, June 10th, are out and we again request that parents phone in their acceptance or regrets before June 7th, 1970, by calling Janet Marmelstein at 587-4044.

#34 - JUNE 9, 1970

Summer Programs...for Behavior Management

PICA staff member Bob Scheelen has been conducting a survey of PICA students this week in order to compile a list for each student of the sorts or activities the student enjoys, the sorts of things the student would like to do more often, the ways he likes to use his money and other information that can be useful when students and parents begin to set up programs for behavior management in their homes. Parents who were asked to comment on the content of the survey contributed a good deal by suggesting pertinent questions which were then incorporated into the survey's final form. Mr. Scheelen will discuss the survey with individual families at a later date.

Students' Final Day at PICA

Thursday, June 11, will be the final day for students to attend PICA, and the year is scheduled to end on a fun note. The morning hours will be occupied with baseball and other activities as the annual PICA Sports Fest takes place. At noon, a fried chicken lunch will be served, along with discussions about each student's achievements during his year in PICA.

About 1:00 PM, students from the D.C. and Prince Georges County will return home, while students from Montgomery County will return to the Educational Facility for the afternoon and will be returned to their schools in time to catch their regular school buses home.

And An Important Message...

Students will receive the money they have saved this year at PICA in the form of Postal Money Orders. These money orders will be issued on June 11, during the luncheon at the PICA Sports Fest. Please be watching for them!

#35 - JUNE 16, 1970

Dear PICA Parent:

Yesterday, we mailed the reports of your child's last marking period grades and FINAL 1-year grades from PICA. Some time in the near future you will receive the FINAL grading reports from your child's school. First we would like to congratulate each of you on helping your child achieve the progress noted in these reports. We are quite pleased with the majority of the reports.

Secondly, you may find that these reports list different FINAL grades than those listed on the school report cards. There are two possible reasons for any differences:

1) The schools list only whole letter grades (like "A", "B", etc.). PICA has always listed grades like "A-", and "C+", along with "C", "B", etc. where it is applicable. These pluses and minuses account for the differences in averages when they occur.

2) In certain instances, the school's grading procedures do not permit us to include the year end test scores, in the average, so our final grades reflect these test scores, but the school's grades may not.

REMEMBER THIS. EVEN THOUGH OUR GRADES MAY BE SLIGHTLY DIFFERENT THAN THOSE LISTED ON THE SCHOOL REPORT, THE GRADES ON THE SCHOOL REPORT ARE THE OFFICIAL GRADES THAT WILL REMAIN IN YOUR CHILD'S PERMANENT GRADE RECORD.

If you have any questions, please call use. Have a pleasant summer and keep in touch with us as much as you can.

Sincerely,

S/James A. Filipczak
Coordinator, PICA Project

P.S. Remember, Bob Scheelen and I will be around to see you, starting within the next week or two.